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UNITED KINGDOM.

IRELAND.

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A review of the industrial and economic condition of Ireland in 1913 and 1914 shows a considerable advance over previous years. Better living conditions for the working classes, the establishment of training schools, a decrease in emigration, increase in farm products, and in quantity and variety of manufactures, and an increasing export and decreasing import trade are some of the results of the efforts of the Government to spread prosperity and intelligence. The latest available trade statistics are for 1913. During this year Ireland's imports rose to $358,496,319 from $312,581,879 in 1909. The increase in exports is even more favorable, as in 1909 they had risen to $296,511,869, and in 1913 overtook the imports, reaching the sum of $359,568,219, thus establishing a favorable trade balance for the first time.

There are no official data as to countries of origin and destination of Ireland's foreign trade. The bulk of her external commerce goes and comes by way of Great Britain, and there are no records to show what share passes through Great Britain in transit. The direct foreign commerce of Ireland has been estimated at about 12 per cent of the total.

Ireland's Imports.

The following table shows the quantity and value of Ireland's import trade for 1913:

Articles.	Quantity.	Value.	Articles.	Quantity.	Value.
Ale, spirits, wines, etc.:			Asbestos and nonconductors:		
Ale and beer..barrels..	172,368	$2,726,194	Asbestos.....cwt..	4,443	$51,351
Brandy..proof galls..	487,213	528,541	Composition...do....	27,387	43,317
Cider.....do....	316,120	102,589	Slag wool.....do....	22,859	33,374
Hop bitters....do....	234,162	33,238	Asphalt.....tons..	3,597	56,890
Porter....hogsheads..	3,696	47,516	Bedsteads.....cwt..	42,223	369,859
Waters, aerated and mineral.....cwt..	41,082	159,942	Biscuits (crackers).do....	92,430	652,228
Whisky..proof galls..	487,213	254,259	Bristles.....pounds..	322,224	548,834
Wine .....gallons..	1,338,445	2,144,039	Brushes and brooms, cwt.....	36,995	631,628
Other.....	.....	11,699	Butter.....cwt..	71,585	2,213,435
Animals:			Margarin.....do....	83,807	1,059,205
Cattle.....head..	553	80,736	Candles.....do....	74,973	510,798
Horses—			Carriages, cars, etc.:		
Geldings...do....	1,714	208,530	Axles.....tons..	488	34,138
Mares.....do....	2,549	370,827	Carriages...number..	205	59,853
Stallions...do....	486	591,289	Cars, jaunting, etc., number.....	631	85,981
Sheep.....do....	15,120	157,875	Carts, lorries, and vans.....number..	679	72,695
Other.....	.....	2,005	Cycles.....	.....	669,145
Arms and ammunition:			Handcarts and wheelbarrows..number..	1,321	11,489
Cartridges.....cwt..	1,828	35,584			
Firearms.....do....	1,426	416,378			
Gunpowder....do....	9,704	105,861			
Shot.....do....	2,314	12,949			

Articles.	Quantity.	Value.
Carriages, cars, etc.—Con.		
Mail carts and perambulators.....cwt..	4,905	$59,678
Motor cars (automobiles).....	.....	2,688,742
Motor cycles.....	.....	334,815
Railway—		
Engines....tons..	738	240,630
Wagons (cars), cwt.....	9,341	60,612
Wheels.....cwt..	6,198	28,908
Wheels, coach, cart, etc.....number..	10,703	66,408
Other.....	.....	13,515
Cement.....tons..	125,491	1,038,195
Cheese.....cwt..	45,157	670,258
Chemicals, drugs, etc.:		
Acid, unclassified, cwt.....	31,324	198,170
Alkali.....cwt..	35,842	32,704
Ammonia.....do....	14,804	144,088
Blue.....do....	3,418	25,364
Borax.....do....	2,363	9,388
Carbide of calcium, cwt.....	38,447	109,925
Copper sulphate, tons.....	3,385	354,174
Cream of tartar.cwt..	7,445	152,170
Finings.....do....	2,293	11,158
Gas (carbonic, etc.), cwt.....	9,113	60,977
Isinglass.....cwt..	166	15,836
Pot and pearl ashes, cwt.....	7,792	71,100
Powder—		
Bleaching...cwt..	107,794	128,957
Soap.....do....	10,900	59,678
Saltpeter.....do....	8,942	54,398
Salts, epsom...do....	18,937	34,557
Sheep wash....do....	9,256	225,222
Soda—		
Ash.....do....	117,821	102,732
Bicarbonate.do...	63,215	76,267
Crystals....do....	22,804	18,726
Sulphate...do....	53,375	32,469
Other.....	.....	172,474
Vitriol.....cwt..	25,419	28,576
Other chemicals, drugs, etc.....	.....	273,051
China, earthenware, and raw materials:		
Bricks.....cwt..	328,809	86,672
China clay.....do....	55,455	19,115
Chinaware.....do....	9,877	298,010
Earthenware, unclassified.....cwt..	195,339	332,718
Fireclay goods.do....	337,775	524,959
Jars.....do....	29,971	58,339
Pipe clay.....do....	34,292	108,474
Sewer and drain pipes.....cwt..	171,976	111,589
Tiles.....do....	224,237	172,781
Other.....	.....	4,833
Chocolate.....pounds..	698,432	230,136
Clocks.....cwt..	4,706	75,706
Coal.....tons..	4,726,703	15,910,263
Coke.....do....	24,564	111,073
Cocoa.....pounds..	6,751,300	2,224,589
Coffee.....do....	1,476,048	192,450
Dyes and tanning agents:		
Aniline and naphthaline.....cwt..	1,810	72,515
Bark.....do....	3,825	7,446
Cutch.....tons..	112	15,262
Iron liquor.....cwt..	17,702	34,460
Tanners' extract,cwt..	14,965	40,056
Valonia.....tons..	143	6,013
Other.....	.....	77,201
Eggs.....dozen..	898,580	205,074
Fats:		
Grease.....cwt..	36,334	130,402
Lard.....do....	40,012	540,343
Stearine.....do....	3,955	38,494
Tallow.....do....	31,286	258,829
Feathers .....dozen..	2,794	$28,553
Fertilizers:		
Artificial manures, general.....tons..	36,415	1,151,892
Basic slag.....do....	33,474	376,712
Bone manure..do	1,131	25,870
Guano.....do....	6,051	202,452
Kainit(potassic)tons..	15,001	260,557
Phosphate rock.do...	95,303	806,062
Soda nitrate....do...	6,443	368,418
Sulphate of ammonia .....tons..	3,239	236,439
Superphosphate,tons .	28,575	399,797
Fish:		
Dried.....cwt..	82,573	582,672
Fresh.....do....	120,033	581,002
Preserved.....do....	16,190	123,107
Herring—		
Cured.....do....	39,405	76,706
Fresh.....do....	17,067	33,224
Other.....	.....	155,057
Shellfish—		
Oysters.....cwt..	5,518	16,113
Other.....do....	2,361	13,923
Fishing nets.....do....	3,205	154,804
Fruits and vegetables:		
Apples and pears, cwt.....	198,215	827,963
Bananas.....cwt..	10,000	19,466
Grapes.....do....	20,582	167,772
Oranges.....do....	207,271	706,080
Lemons.....do....	28,942	102,114
Tomatoes.....do....	2,956	23,734
Almonds.....do....	995	36,319
Nuts.....do....	6,692	42,339
Currants, dried.do....	52,855	360,106
Raisins.....do....	24,191	206,018
Figs.....do....	2,061	13,037
Fruit—		
Dried.....do....	49,165	357,897
Preserved..do....	64,422	438,915
Green.....do....	141,681	571,702
Other fruit.do....	25,560	128,563
Preserves.....do....	152,275	1,111,572
Onions.....do....	281,252	270,893
Potatoes.....tons..	6,999	129,429
Plants, bulbs, etc., cwt.....	23,768	395,194
Other.....	.....	14,059
Glass and glassware.cwt..	197,315	912,219
Mirrors.....do....	2,288	95,874
Bottles.....do....	418,393	962,910
Glue.....do....	10,456	76,326
Grain, flour, and feedstuffs:		
Wheat.....cwt..	7,849,871	16,394,766
Oats.....do....	338,109	514,130
Barley.....do....	1,521,715	2,550,108
Malt.....do....	746,069	2,435,283
Rye.....do....	381,966	799,008
Maize.....do....	14,880,194	20,215,704
Peas.....do....	39,843	90,950
Beans.....do....	48,037	109,485
Tares.....do....	8,682	19,666
Lentils.....do....	3,589	10,044
Hops.....do....	71,411	2,137,260
Rice.....do....	89,501	239,558
Rice flour.....do....	14,545	40,698
Sago.....do....	1,582	4,133
Sago flour.....do....	31,497	82,390
Tapioca.....do....	10,368	47,935
Corn food.....do....	25,303	132,375
Farina.....do....	26,432	80,396
Wheat flour....do....	4,968,282	12,791,266
Oatmeal.....do....	163,826	498,286
Indian meal....do....	36,990	66,752
Linseed meal...do....	31,089	132,383
Cotton meal....do....	268,912	515,284
Feeding meal, unclassified....cwt....	427,145	571,644
Meal, unclassified, cwt.....	211,158	282,588
Bran and pollard, cwt.....	1,163,494	1,380,149

Articles.	Quantity.	Value.
Grain, flour, and feed-stuffs—Continued.		
Grain offal.....cwt..	42,411	$11,278
Grains.....do....	85,528	83,216
Feedstuffs.....tons..	7,314	177,963
Linseed cake...do....	27,930	1,010,410
Cottonseed cake, tons.....	20,538	769,603
Cilcake, unclassified, tons.....	18,937	576,891
Dog biscuits....cwt..	3,211	12,114
Gum.....do....	1,497	18,487
Hair, fiber, flock, etc.:		
Hair, curled....cwt..	7,815	212,977
Hair, plasterers'.cwt..	14,023	42,669
Cotton waste, pounds.....	1,820,000	131,012
Waste of hemp, flax, etc.....cwt..	59,523	195,542
Wool flock..pounds..	79,632	4,842
Fiber.....cwt..	12,939	56,714
Calum.....do....	4,628	22,522
Coir yarn.....do....	14,301	73,075
Mattresses.....do....	3,055	122,494
Mats and matting, cwt.....	5,572	153,542
Hay and straw.....tons..	526	6,437
Straw envelopes.cwt..	14,474	45,783
Hides, leather, and manufactures of:		
Hides and skins.cwt..	5,934	131,769
Fleshings.....do....	23,143	22,526
Leather.....do....	71,986	2,750,010
Boots and shoes.do...	158,485	8,146,512
Saddlery.....do....	5,002	401,647
Belting.....do....	1,298	101,057
Clogs.....do....	1,023	22,405
Ice.....tons..	5,506	20,765
India-rubber goods..cwt..	20,058	2,236,543
Gutta percha....do....	183	10,954
Ink.....do....	11,943	21,797
Instruments, musical:		
Organs.....cwt..	2,161	63,039
Pianos.....number..	2,847	450,288
Unclassified.....cwt..	5,085	185,599
Instruments, scientific, etc.....cwt..	706	769,608
Machinery:		
Agricultural....tons..	1,740	355,645
Churns.....do....	301	42,236
Textile.....do....	778	283,950
Unclassified....do...	23,730	6,005,066
Matches.....cwt..	49,804	575,654
Meat, poultry, and game:		
Beef.....cwt..	139,485	1,187,908
Mutton.....do...	49,544	491,266
Pork.....do....	3,392	14,010
Bacon.....do...	568,921	9,967,157
Hams.....do...	23,504	411,774
Pigs' heads.....do...	135,574	791,726
Meat, preserved.do...	27,023	443,879
Tongues.....do...	1,350	26,275
Sausages.....do...	21,523	342,154
Bladders.....do...	2,140	78,107
Meat, coarse.....do...	26,624	207,303
Poultry.....do...	4,818	82,064
Rabbits.....do...	2,180	15,782
Game.....do...	365	6,219
Provisions and groceries.....cwt..	112,872	1,579,214
Metals:		
Antimony.....tons..	9	2,083
Brass and bronze, tons.....	816	258,119
Copper.....tons..	1,687	644,472
Lead and lead piping, tons.....	4,488	412,246
Pig iron.....tons..	16,713	349,736
Scrap iron.....do....	1,609	21,368
Steel.....do....	73,587	6,625,088
Tin.....do....	654	620,625
Zinc.....do....	751	82,234
Solder.....do....	118	46,511

Articles.	Quantity.	Value.
Metals—Continued.		
Yellow metal..tons..	389	$102,226
Manganese.....do....	797	18,721
Silver...troy ounces..	156,800	123,998
Plate.....do....	365,866	645,421
Metal rods.....tons..	665	28,318
Metal manufactures:		
Bar and wrought iron, tons.....	65,552	3,078,436
Girders, beams, and joists.....tons..	3,084	97,554
Plates and sheets, tons.....	36,992	1,815,222
Galvanized iron sheets.....tons..	7,866	503,382
Tin plate.....do....	4,856	345,025
Iron hoops.....do....	1,389	65,230
Anchors and chains, tons.....	2,687	203,128
Anvils and vises.cwt..	1,592	10,817
Bolts, rivets, and nuts.....tons..	9,662	658,282
Nails and screws, tons.....	6,633	367,177
Gutters, pipes, bends, etc.....cwt..	41,047	97,379
Type.....tons..	46	29,907
Meters.....do....	212	216,656
Safes.....do....	174	25,403
Pumps.....cwt..	8,215	119,935
Cables, electric.do....	18,014	1,468,393
Trunks.....do....	4,411	37,030
Farm tools, unclassified.....cwt..	66,366	465,612
Forks and rakes, cwt.....	5,119	37,676
Spades and shovels, cwt.....	8,612	63,392
Scythes.....cwt..	3,201	24,225
Boilers and cylinders, cwt.....	33,036	353,692
Railway plants, iron chairs, buffers, fishplates, etc.tons..	1,389	59,572
Rails.....do....	16,137	561,497
Ranges and stoves, cwt.....	49,922	327,978
Grates and fenders, cwt.....	5,216	47,594
Basins, tanks, cisterns, etc.....cwt..	2,519	12,565
Pots, pans, buckets, etc.....cwt..	35,862	137,435
Iron wire.....tons..	4,784	236,307
Tinware.....cwt..	33,284	542,619
Lamps.....do....	7,470	218,116
Hardware.....do....	276,930	3,234,432
Electroplated ware cwt.....	3,957	346,621
Cutlery.....cwt..	3,490	280,237
Tools and implements, cwt.....	1,143	8,414
Iron manufactures, unclassified...tons..	22,092	2,418,992
Iron ore.....do....	1,119	5,226
Sulphur ore....do....	47,091	309,378
Lead ore.....do....	23	1,372
Bauxite.....do....	40,316	114,451
Milk, condensed....cwt..	33,496	370,842
Moss.....do....	582	2,833
Oils:		
Coconut oil.....do....	9,626	100,717
Cotton oil.....tons..	117	17,082
Linseed oil.....do....	511	75,036
Naptha.....gallons..	2,331,428	567,293
Palm oil.....cwt..	1,916	18,648
Petroleum and paraffin oil....gallons..	17,900,953	2,905,290
Turpentine.....cwt..	19,890	164,552
Spirits, methylated, cwt.....	1,653	12,070
Oils, unclassified, cwt.....	570,581	2,637,896
Oleo.....cwt..	10,165	86,570

Articles.	Quantity.	Value.
Paints and painters' material:		
Paints, unclassified, cwt.	133,017	$339,848
Lead paint.....cwt..	17,543	123,790
Varnish.....do....	20,761	447,070
Lampblack....do....	1,508	2,934
Mineral, white.do....	445	2,478
Putty.....do....	14,972	30,884
Sizing.....do....	27,361	386,142
Shellac.....do....	150	4,015
Paper and printed matter:		
Paper.....cwt..	804,867	2,839,744
Wood pulp.....tons..	14,275	555,754
Cardboard.....cwt..	6,565	43,930
Millboards.....do....	51,901	138,920
Strawboard....do....	71,562	111,770
Stationery.....do....	58,231	958,773
Books.....	.....	437,985
Show cards.....cwt..	15,993	585,884
Newspapers, etc., cwt.	61,713	361,644
Paraffin shale...cwt..	45,580	299,451
Peat litter.....tons..	2,562	16,001
Perfumery.....pounds..	46,256	25,092
Pickles, sauces, etc...cwt.	22,529	153,494
Vinegar.....gallons.	91,790	13,957
Pictures, engravings etc., cwt.	4,123	150,487
Polishes and abrasives:		
Blacking.....cwt..	36,242	92,594
Polishes, unclassified.....cwt..	6,246	83,592
Emery.....do....	2,746	10,692
Emery cloth....do....	917	11,714
Grindstones....tons..	359	7,032
Rags.....do....	2,399	123,166
Resin.....cwt..	26,667	82,730
Retorts.....do....	7,966	5,168
Salt.....tons..	33,151	143,182
Sand, silver.....cwt..	40,556	5,962
Seeds:		
Clover.....do....	8,897	188,344
Grass.....do....	32,861	251,871
Flax.....do....	136,072	508,550
Hemp.....do....	1,121	3,684
Other.....do....	78,055	332,372
Ships and boats.....No..	347	37,233
Oars and spars..cwt..	955	3,328
Soap.....do....	207,235	1,210,212
Soot.....do....	28,657	10,457
Spices:		
Ginger.....do....	1,137	10,258
Mustard....pounds..	636,720	77,465
Pepper.....do....	260,512	34,337
Other.....do....	185,696	23,534
Sponges.....do....	38,976	42,680
Starch.....cwt..	60,308	293,490
Stones and manufactures of:		
Freestone and limestone.....tons..	5,874	30,017
Marble.....do....	1,107	33,672
Marble chimney pieces.....cwt..	2,102	16,624
Figures.....do....	403	17,651
Granite.....tons..	1,475	95,112
Sets and blocks.do....	8,316	49,576
Macadam and gravel.....tons..	4,983	3,636
Lithographic stones, tons.	46	5,766
Slates.....tons..	24,296	493,638
Slate slabs.....do....	185	4,253
Slate chimney pieces, cwt.	4,767	21,747
Gypsum (plaster of Paris).....tons..	4,994	36,991
Chalk.....cwt..	19,185	5,251
Whiting.....do....	27,850	5,926
Sugar and manufactures of:		
Sugar.....cwt..	2,836,928	9,261,465
Confectionery..do....	212,101	2,296,622
Glucose.....cwt..	56,709	$146,190
Molasses, sirup, and treacle.....cwt..	87,373	294,098
Tar and pitch:		
Tar.....cwt..	79,121	154,014
Pitch.....do....	217,021	475,257
Creosote.....do....	42,079	44,367
Tea.....pounds..	32,663,344	5,960,854
Textiles and textile material:		
Cotton:		
Raw.....cwt..	359,138	6,007,521
Yarn....pounds..	13,277,376	3,096,106
Wool.....cwt..	582	9,349
Cotton goods...do....	465,978	25,152,374
Flax.....tons..	40,982	11,193,511
Linen yarn..pounds..	17,389,792	3,437,987
Linen goods....cwt..	108,590	6,407,496
Jute and manufactures of—		
Raw.....tons..	3,967	506,708
Yarn....pounds..	2,775,472	253,252
Goods.....cwt..	587	9,610
Hemp.....tons..	14,370	2,132,913
Tow or codilla.do....	5,714	816,837
Rope, twine, and cordage.....cwt..	45,085	487,203
Oilcloth.....do....	50,716	490,789
Bags and bagging, cwt.	131,327	2,055,780
Canvas goods...cwt..	14,023	310,598
Silk and velvet.do....	1,245	1,028,705
Wool.....pounds..	4,333,972	900,771
Wool yarn.....do....	2,148,272	1,110,798
Blankets.....cwt..	5,114	211,012
Carpets.....do....	13,446	1,236,718
Felt.....do....	25,726	50,076
Woolen goods, unclassified.....cwt..	57,662	5,616,919
Thread.....pounds..	1,438,752	933,560
Yarns, unclassified, pounds.	2,169,440	774,023
Hosiery.....cwt..	21,832	1,629,095
Drapery (dry goods), cwt.	297,424	28,309,006
Lace.....cwt..	2,263	201,123
Hats.....do....	18,212	1,823,905
Apparel, unclassified, cwt.	46,205	4,209,503
Tobacco:		
Manufactured, pounds.	4,687,116	2,946,272
Unmanufactured, pounds.	9,234,752	1,859,432
Tobacco pipes.....cwt..	2,898	662,817
Toys and fancy goods, cwt.	22,034	160,843
Umbrellas .....cwt..	843	243,685
Wax:		
Bees.....do....	438	13,854
Paraffin.....do....	29,544	120,412
Wood, timber, and manufactures of:		
Timber.....loads..	91,180	2,662,364
Boxwood.....do....	1,253	115,856
Mahogany.....do....	1,049	44,158
Corks and corkwood, loads.	2,347	1,027,950
Timber, sawn..loads..	11,956	392,742
Pit wood.....do....	1,603	15,602
Boards and deals, loads.	211,415	4,629,832
Sleepers, railway, loads.	9,836	155,567
Staves.....tons..	13,412	587,425
Hoops.....cwt..	13,108	33,492
Baskets.....do....	10,498	214,574
Basket rods....do....	2,236	13,058
Clog soles.....do....	726	5,475
Handles.....do....	8,010	26,342
Cane.....do....	2,859	12,522
Lasts.....do....	413	5,626

Articles.	Quantity.	Value.	Articles.	Quantity.	Value.
Wood, timber, and manufactures of—Continued.			Wood, timber, and manufactures of—Continued.		
Picture frames..cwt..	9,963	$28,902	Furniture.....cwt..	119,274	$2,437,878
Rollers, wood..do....	2,472	6,618	Other wooden manufactures.....cwt..	14,866	51,847
Walking sticks, etc., cwt.....	581	91,607	Yeast.....do....	15,796	150,862
Washboards....cwt..	3,338	11,374	Miscellaneous articles.....	.....	49,021
Splints and skillets, cwt.....	8,901	24,907	Total imports.....	.....	358,496,319

Review of Wheat Purchases—Oil Imports.

The imports of wheat for Irish mills in 1913 were 7,849,871 hundredweight, valued at $16,394,766; and maize imports were 14,880,194 hundredweight, worth $20,215,704. The maize is mainly from the Argentine and is ground for cattle and stock feed. The use of corn meal for the table is unknown here and efforts to introduce it would be costly and probably unsuccessful. The price of imported wheat to Irish millers was from 24½ cents to 40 cents per stone (14 pounds). Western (Pacific) wheat rose from $8.64 per quarter (500 pounds) to $15.09 per quarter. Winter wheat rose from $7.30 per quarter (480 pounds) to $14.11 per quarter. Freight increases accounted for most of these advances, the increase on rates from the River Plate amounting to from 2 cents to 10 cents per stone.

Wheat flour imports into Ireland in 1913 were 4,968,282 hundredweight, valued at $12,794,266. Household flour rose from $7.80 per bag in July to $10.25 per bag in December; and bread rose from 5 cents to 9 cents per loaf at one time in the autumn of 1914.

The wheat for flour is mainly imported (see Daily Consular and Trade Reports for Dec. 31, 1914), and 75 per cent comes from the United States. The Irish wheat, which forms about one-seventeenth of the total used by the Irish mills, is soft; and the heaviest importations from the United States are of soft Pacific coast wheat, such as Walla Walla and Blue Stem. As hard wheat is also needed to supply gluten to the finished flour, northwestern wheat from the United States and Canada is taken. Bakers' flour, which forms about one-fourth of the total consumed in the south of Ireland, requires to be especially fortified with hard wheat, while household flour, forming the other three-fourths of the supply, may have a higher proportion of soft wheat. For hard wheat Manitobas are favored, as Duluth is said to be deteriorating as to gluten, and Argentine wheat is imperfectly graded.

Most wheat is imported into Cork via Liverpool, but large quantities also come direct. Importations from America were unusually heavy in 1914, and direct imports to Cork from Chicago and New Orleans were made. The impression here is that American flour is falling off in quality.

The annual import of linseed and cottonseed cake, etc., amounts to about 65,000 tons, valued in 1913 at $2,350,000.

Grain Mills.

The grinding of maize is done with simple machinery and on a small margin of profit. The Irish production of bran, pollard, and tailings, incidental to flour milling, is insufficient to supply the large Irish market for these commodities as stock feed, and the imports in

1913 totaled 1,163,494 hundredweight, valued at $1,380,149. As this imported supply determines the price, the Irish millers are not in an easy position. The price of all feedstuffs rose sharply during 1914. At present it is said that about 50 per cent of the flour used in Ireland is ground here, while about 25 per cent is from England and an almost equal share from the United States.

In 1913 there were no fewer than 1,129 active mills engaged in grinding grain in Ireland, Ulster having 496, Leinster 356, Munster 156, and Connaught 121. The mills grinding chiefly oats were 790, those grinding maize were 202, and those grinding wheat but 104. Of the total only 201 produced more than 500 hundredweight per day when in operation. Water mills were 944 in number, steam mills 65, gas, oil, etc., 61, water and steam combined, 55, and windmills 5. In addition, there are numbers of derelict water mills through the country.

Ireland's Leading Unmanufactured Imports.

Exactly 50 per cent of Ireland's imports in 1913 were classified as manufactured goods; 35 per cent were farm produce and food and drink stuffs, and 15 per cent raw materials. As to exports, 55 per cent were farm produce and food and drink stuffs, 39 per cent manufactured goods, and 6 per cent raw material. It is an anomalous fact that Ireland imports heavy quantities of the identical farm products which it exports, its total imports in these lines being $109,496,250, while its exports of the same articles were $182,493,750. Meats were imported to a value of $13,986,544, and almost nine-tenths were swine products producible in Ireland. Butter and margarin were imported to a value of $2,213,435 and $1,050,205, and fish to a value of $1,584,894—all Irish products. The fact seems to be that Ireland exports high-grade bacon, butter, and meats, and imports a cheaper quality of the same articles for domestic use.

The chief crude materials imported by Ireland in 1913 were coal $15,910,263, flax $11,193,511, timber $9,664,991, and hemp $2,132,913. All of these articles must of necessity be procured abroad; although of timber, Ireland exports one-fourth as much as it imports, owing to its wood being most suited for pit props which are not required at home. The imports of timber are mainly sawed boards and deals, and heavy construction timber.

Manufactured Imports.

The purchases of manufactured goods in 1913 were valued at $177,627,250, and the conspicuous feature of this trade is the huge textile import of $89,357,885, one-fourth of the entire importations of Ireland. These textiles include drapery and apparel $36,172,631, cotton goods $25,152,374, and woolen goods $5,616,919. The class of imports second in magnitude is formed by metals and their products, totaling $40,878,600. Of these a large part, $15,806,392, are simple iron and steel products, such as bars, sheets, rails, and bolts. The imports of hardware, tools, stoves, pumps, etc., were $9,025,357, while machinery, including agricultural machinery, as well as textile and railway plant, was $7,047,471. Motor cars and bicycles were $3,692,702. The third leading class of manufactured imports is leather and leather goods, amounting to $11,192,950, of which the

chief item is boots and shoes $8,146,356. The imports of footwear and saddlery are publicly deplored, in view of the exportations of hides ($3,584,357) which might have been manufactured in Ireland.

A number of minor items of substantial size should be noted. Paper and books were purchased to the amount of $5,650,863, although Ireland itself makes paper and exports $1,764,890. Chemicals form an entry of $6,424,564, and of this total chemical fertilizers account for $3,778,857. One of the heaviest lines of fertilizer is the basic slag produced by the purification of steel and other molten metals by lime, in English ironworks. Commodities made of clay, china, and glass are bought to the sum of $4,588,939, the heaviest single item being glass and glassware at $1,971,751. Under "chandlery" the imports came to $11,284,255, of which petroleum amounted to $6,585,153.

Sources of Imports.

As already explained, an amazingly high share of Ireland's trade, inward and outward, passes through British ports. Goods originating in foreign countries have more often than not been warehoused in Liverpool, London, or Glasgow, and a profit taken on them by British factors; however, in a number of instances a marginal note accompanies the import items stating something as to the sources.

The largest item thus labeled is maize, $20,215,704 worth being imported directly into Ireland, while the source is not stated it may be taken as Argentina. Flax to a value of $11,193,511 was imported from Belgium and Russia, and flaxseed worth $334,825 from Russia, the Netherlands, and Canada. Barley to a value of $2,059,673 was imported directly from India and Canada; wheat to $14,664,044 from the United States, Argentina, Canada, and Australia; wheat flour worth $2,936,719, one-half from the United States; rice worth $136,890 from the Netherlands; and rye worth $497,634, which was imported direct from abroad, presumably from Germany. Cottonseed cake from the United States was worth $574,145. Margarin came direct from the Netherlands to a value of $149,251, and frozen meat from Argentina to $100,566.

As to mineral products, the largest was petroleum, from the United States, $2,905,290. Phosphate rock from the United States and Tunis was $780,679. Metal sheets and plates from Germany were $623,540, and hardware from Germany $168,133. Nails to a value of $102,313 came principally from the United States. Earthenware to a value of $117,346 and bottles to $154,750 came from Germany, while window glass to a value of $139,342 came from Belgium. The fact that sulphur to a value of $270,514 came to Ireland direct from abroad is mentioned, but the source is not stated—possibly from Sicily.

In connection with the flax figures given above there should have been noted the imports of linen yarn, $2,612,113, mostly from Belgium; hemp, $610,157, from Russia; and tow, $610,415, from Russia and Belgium. Miscellaneous items include unmanufactured tobacco, $1,859,431, almost wholly from the United States; $181,150 of cocoa from the Netherlands; $86,838 of farm machinery from the United States; $268,066 of wood pulp from Russia, and $141,946 of wood pulp from Germany; $100,868 of strawboard from the Netherlands; $68,953 of toys from Germany, and $167,115 of paper and $193,935 of wooden manufactures direct from foreign sources not specified.

Articles of Export from Ireland.

The quantity and value of Ireland's export trade for 1913 is shown in the following table:

Articles.	Quantity.	Value.
Ales, spirits, wines, and other beverages:		
Ale and beer..barrels..	13,335	21,115
Porter....hogsheads..	859,056	11,043,743
Home-made spirits (whisky), proof gallons..	7,415,999	9,774,365
Foreign spirits, proof gallons..	41,741	45,282
Wine.....gallons..	295,477	473,322
Aerated and mineral waters.....cwt..	332,265	1,293,574
Cider.....gallons..	12,890	4,180
Animals:		
Cattle—		
Fat.....head..	354,953	30,696,962
Thin.....do....	623,495	37,675,129
Milch cows..do....	40,805	3,259,596
Springers...do....	29,074	2,134,711
Calves.....do....	53,142	1,293,078
Other.....do....	8,152	198,360
Sheep—		
Fat.....do....	293,151	3,560,603
Thin.....do....	26,268	234,360
Lambs.....do....	339,836	2,398,026
Swine—		
Fat.....do....	187,422	4,788,470
Thin.....do....	12,874	195,784
Horses—		
Stallions...do....	265	322,405
Mares.....do....	17,984	3,938,362
Geldings...do....	18,394	4,028,148
Asses.....do....	1,834	17,851
Arms and ammunition:		
Firearms.....cwt..	681	198,845
Gunpowder....do....	185	2,020
Asbestos composition, etc.....cwt..	11,082	17,529
Asphalt.....tons..	1,664	26,318
Bedsteads.....cwt..	731	5,782
Bedding, etc...do....	1,036	10,589
Biscuits.....do....	313,820	2,214,447
Brushes and brooms, cwt.....	2,033	34,873
Butter.....tons..	725,368	18,179,516
Margarin.....cwt..	58,091	727,951
Candles.....do....	3,630	24,732
Cars, vehicles, etc.:		
Carriages, cars, etc., number.....	469	93,368
Carts and vans, number.....	347	37,150
Mailcarts and perambulators.....cwt..	146	17,776
Shafts.....do....	575	3,718
Spokes and felloes, number.....	54,190	9,065
Wheels.....cwt..	1,606	19,871
Cement.....tons..	356	2,944
Charcoal.....cwt..	2,486	3,631
Cheese.....do....	6,372	94,581
Chemicals, drugs, etc.:		
Acids, unclassified, cwt.....	1,917	12,127
Carbide of calcium, cwt.....	1,511	5,056
Glycerine.....cwt..	1,155	16,580
Magnesia.....do....	1,504	8,883
Nitercake.....do....	71,290	13,008
Soap lye.....do....	3,584	7,850
Sheep wash....do....	1,469	35,745
Soda.....do....	5,737	3,664
Artificial manures, tons.....	26,219	830,317
Other chemicals, drugs, etc.....cwt..	54,505	975,412
China, earthenware, clay, etc.:		
White clay (diatomaceous).....tons..	3,455	25,223
China, earthenware, clay, etc.—Continued.		
Earthenware, unclassified.....cwt..	3,324	$5,600
Chinaware and porcelain.....cwt..	555	23,699
Chocolate.....pounds..	17,300	5,718
Clocks.....cwt..	281	4,525
Cocoa.....pounds..	75,712	24,945
Coffee.....do....	19,936	2,165
Dyes and tanning substances.....cwt..	7,272	19,272
Eggs.....dozen..	63,982,350	14,692,776
Fats:		
Lard.....cwt..	79,876	1,146,712
Tallow.....do....	12,588	101,143
Grease.....do....	69,176	589,128
Greaves.....do....	2,912	6,376
Feathers.....do....	20,324	207,703
Fish:		
Herring—		
Fresh.....cwt..	55,781	122,154
Cured.....do....	159,023	477,229
Mackerel—		
Fresh.....do....	11,151	23,743
Cured.....do....	48,853	130,758
Other.....do....	44,501	105,568
Salmon and trout, cwt.....	11,979	353,664
Eels, freshwater.cwt..	2,810	48,373
Shellfish—		
Mussels....do....	20,650	11,301
Oysters....do....	4,383	36,140
Lobsters...do....	13,938	305,832
Winkles....do....	11,926	13,057
Other fish.....do....	93,380	261,116
Fishing nets.....do....	1,883	157,311
Fruit and vegetables:		
Apples and pears, cwt.....	7,786	30,314
Blackberries....cwt..	8,659	21,073
Gooseberries...do....	1,605	5,271
Fruit—		
Green.....do....	6,451	20,405
Dried.....do....	1,346	9,825
Preserved..do....	4,286	29,199
Pulped.....do....	7,785	21,624
Preserves.....do....	62,272	393,962
Potatoes.....tons..	124,020	2,301,008
Preserved..do....	489	66,632
Plants, trees, etc..cwt	8,056	133,951
Other vegetables, tons.....	2,544	9,596
Glass and glassware, general.....cwt..	3,411	15,767
Bottles.....do....	12,681	30,858
Glue.....do....	5,134	37,477
Grain, flour, and feedstuffs:		
Wheat.....cwt..	57,578	116,753
Oats.....do....	1,475,509	2,363,601
Barley.....do....	90,500	149,159
Malt.....do....	64,216	209,878
Maize.....do....	800,255	1,087,209
Beans.....do....	6,346	22,392
Hops.....do....	1,395	41,749
Rice, sago, etc..do....	10,648	32,965
Wheat flour....do....	215,059	553,817
Oatmeal.....do....	124,815	379,632
Indian meal....do....	52,966	95,588
Cotton meal....do....	7,271	13,932
Bran and pollard, cwt.....	50,252	59,610
Grain offal.....cwt..	266,205	259,097
Grains (malting residium).....cwt..	112,274	109,277
Oil cake.....tons..	1,584	48,178
Other feedstuffs.....	.....	201,634
Hay and straw.....tons..	19,738	333,439

Articles.	Quantity.	Value.
Hides, skins, leather, and manufactures of:		
Hides and skins..cwt..	237,042	$3,578,902
Fleshings.....do....	5,004	5,455
Leather.....do....	6,055	265,200
Boots and shoes, cwt.....	3,801	195,380
Saddlery.....cwt..	709	56,835
Honey.....do....	1,706	22,415
Horns and hoofs....do....	475	3,937
India-rubber goods.do....	7,149	797,137
Instruments:		
Musical—		
Organs.....do....	253	7,387
Pianos..number..	428	67,693
Other.....cwt..	567	20,796
Nautical and scientific.....cwt..	227	247,452
Lime.....do....	266,680	56,776
Machinery, textile..tons..	720	202,874
Unclassified....do....	15,164	3,824,962
Matches.....cwt..	634	7,330
Meat, poultry, and game:		
Beef and mutton, cwt.....	36,189	557,332
Pork.....cwt..	61,165	946,310
Bacon.....do....	995,257	17,436,305
Hams.....do....	120,419	3,047,301
Tripe.....do....	8,353	30,488
Meat, preserved, cwt.....	5,247	86,181
Sausages.....cwt..	468	7,441
Meat, coarse, etc., cwt.....	157,380	1,225,423
Bladders.....cwt..	5,087	185,672
Poultry.....do....	281,783	4,799,542
Rabbits.....do....	29,463	213,279
Game.....do....	785	15,282
Provisions and groceries.....cwt..	23,787	416,732
Metals and manufactures of:		
Brass and bronze, tons.....	635	$219,844
Copper.....tons..	287	109,642
Iron scrap.....do....	48,660	627,531
Steel.....do....	1,257	113,170
Anchors and chains, tons.....	51	4,964
Bolts, rivets, and nuts, tons.....	85	5,792
Meters.....tons..	52	53,142
Nails and screws, tons.....	58	3,212
Railway plant..tons..	523	22,269
Wire, iron.....do....	76	3,752
Lead.....do....	1,193	109,584
Tin and tin plate, tons.....	447	130,087
Zinc.....tons..	129	14,123
Metal, scrap....do....	819	343,371
Agricultural implements.....cwt..	3,622	25,412
Boilers and cylinders, cwt.....	3,529	37,783
Lamps.....cwt..	494	14,425
Pumps.....do....	433	7,849
Ranges, stoves, and ovens.....cwt..	3,644	24,829
Piping, etc.....do....	2,440	10,391
Electroplated ware, cwt.....	818	71,655
Tin ware.....cwt..	688	11,217
Trunks.....do....	1,119	9,392
Electric cables..do....	441	35,949
Silver...troy ounces..	71,866	56,832
Other.....	.....	814,088
Ores:		
Iron.....tons..	59,546	101,423
Bog.....do....	1,690	4,112
Burned....do....	28,572	208,568
Sulphur....do....	7,415	48,714
Bauxite....do....	6,584	18,692
Milk, condensed....cwt..	270,362	$1,743,326
Whole and separated, cwt.....	3,637	5,972
Cream.....cwt..	16,836	243,066
Moss, Carrigeen....do....	7,122	25,560
Oils:		
Petroleum and paraffin.....gallons..	344,585	55,897
Other.....cwt..	49,978	267,542
Paints, and painters' material:		
Varnish.....cwt..	470	8,350
Lampblack....do....	1,128	2,194
Barytes.....do....	123,762	82,699
Ochre.....do....	3,305	2,663
Sizing.....do....	303	4,278
Other paints...do....	12,983	19,095
Paper and printed matter:		
Paper.....cwt..	301,298	1,073,627
Paper-making material.....tons..	206	4,735
Millboard.....cwt..	1,196	3,203
Stationery.....do....	13,028	178,815
Books.....do....	4,157	48,553
Show cards.....do....	7,802	285,713
Newspapers, etc.do....	20,955	122,796
Peat litter.....tons..	2,117	13,222
Vinegar.....gallons..	48,780	7,415
Pictures, engravings, etc., cwt.....	1,411	51,502
Pulis es.....cwt..	440	5,888
Rags.....tons..	6,226	146,190
Resin.....cwt..	2,288	7,101
Salt, manufactured..tons..	5,584	23,097
Rock salt.....do....	19,589	28,601
Sand, molding.....do....	9,981	6,074
Seaweed: Kelp.....	.....	81,514
Seeds:		
Grass.....cwt..	393,963	1,222,226
Other.....do....	21,180	103,072
Ships, steam vessels:		
Number.....	19	15,319,742
Gross tons.....	130,899	
Soap.....cwt..	22,655	137,300
Sponges.....pounds..	12,768	13,982
Starch.....cwt..	2,861	15,314
Stones, and manufactures of:		
Marble, granite, etc., tons.....	23,123	439,367
Limestone.....tons..	112,429	143,625
Figures (statuary), cwt.....	84	3,679
Sets, blocks, and curbs.....tons..	12,500	62,354
Flags.....do....	665	2,750
Macadam and gravel, tons.....	47,762	34,864
Slates.....tons..	150	3,250
Alumina.....cwt..	314,632	1,129,228
Whiting.....do....	189,697	28,863
Sugar, and manufactures of:		
Sugar.....cwt..	3,241	10,580
Confectionery..do....	46,001	498,096
Molasses, sirup, etc., cwt.....	2,941	9,898
Tar and pitch:		
Tar.....cwt..	12,189	23,729
Pitch.....do....	102,398	224,243
Tea.....pounds..	431,784	79,314
Textiles and textile material:		
Cotton, raw.....cwt..	397,475	6,605,393
Cotton yarn..pounds..	901,712	210,267
Cotton goods....cwt..	245,441	3,248,316
Flax.....tons..	2,917	796,729
Linen yarn..pounds..	23,427,986	8,432,142
Linen goods.....cwt..	1,163,952	68,680,515
Jute goods.....do....	8,279	135,644
Jute yarn...pounds..	2,753,181	251,218
Hemp.....tons..	45	6,681
Tow and codilla..do...	337	48,174

Articles.	Quantity.	Value.
Textiles and textile materials—Continued.		
Rope, cordage, etc., cwt.	249,069	$2,691,861
Oilcloth.....cwt..	1,134	11,173
Bags and bagging, cwt.	42,238	661,192
Canvas.....cwt..	12,448	275,630
Silk, poplin, and velvet.....cwt..	156	128,869
Wool.....pounds..	10,231,312	2,489,536
Wool yarn.....do....	30,912	15,982
Blankets.....cwt..	78	3,197
Carpets.....do....	6,163	566,851
Roofing felt....do....	406,341	790,982
Woolen goods..do....	31,441	3,062,702
Thread.....pounds..	4,221,616	2,739,265
Lace.....	.....	328,488
Hosiery.....cwt..	3,528	263,258
Drapery and haberdashery.....cwt..	29,954	2,851,038
Hats.....do....	265	26,537
Other.....	.....	1,802,694
Hair, fiber, flock, etc.:		
Hair, curled.....cwt..	5,383	146,702
Cotton waste.pounds.	310,890	22,372
Waste flax, tow, and hemp.....cwt..	205,350	674,550
Coir yarn.....do....	657	3,357
Mattresses.....do....	433	17,305
Mats and matting, cwt.	376	10,362
Hair, fiber, flock, etc.—Continued.		
Fiber and oakum, cwt.	7,613	$36,980
Tobacco:		
Manufactured, pounds.	8,098,378	2,463,174
Unmanufactured, pounds.	1,745,023	351,362
Snuff.....pounds..	47,936	58,320
Tobacco pipes.....cwt..	255	214,126
Toys and fancy goods, cwt.	926	5,182
Umbrellas.....cwt..	30	4,044
Wax, paraffin.....do....	893	3,641
Wood, timber, and manufactures of:		
Rough timber.loads..	103,928	948,311
Sawn timber...do....	6,287	91,788
Pit wood.....do....	9,268	62,018
Corks and corkwood, loads.	105	45,988
Willows.....cwt..	918	5,363
Clog blocks.....do....	30,858	56,315
Walking sticks.do....	446	46,883
Furniture.....do....	52,599	1,075,087
Wooden manufactures, general..cwt..	6,084	21,218
Yeast.....do....	132,568	1,266,093
Miscellaneous articles.....	.....	10,061,557
Total exports.....	.....	359,568,219

Character of Exports.

It is interesting to note that 61 per cent of Ireland's exports are of agricultural character. It has been said that 45 per cent of the Irish farmers' income is drawn from breakfast-table necessities—bacon, eggs, butter, etc.

The exports of woolen goods from Ireland in 1913 were valued at $3,062,702 and weighed 31,441 hundredweight, while the wool exports were 10,231,312 pounds, valued at $2,489,536. The good quality of Irish wool has always been recognized. The tweeds and cheviots now made in Ireland are considered in the United Kingdom to be of superior character, and the Province of Munster is the center of the industry, having 34 mills out of a total of 76. Many of these mills are small, being only one step removed from cottage industries. On the other hand, at least three mills in the vicinity of the city of Cork employ several hundred persons and turn out substantial quantities of suitings, tweeds, and knitted goods.

Farm Crops of Ireland.

The principal crop of Ireland is hay and grass. Potatoes rank second in value, and are followed by root crops, oats, barley, and cabbage in the order named. The following statement has been compiled to show the typical crop situation in Ireland. The acreage and production figures show the mean or norm of the years from 1903 to 1912, while the price and value have been calculated as of the year 1913:

Products.	Acreage.	Average production per acre.	Total production.	1913.	
				Average price per ton.	Total value.
		Tons.	*Tons.*		
Hay	2,338,884	2.2	5,086,480	$14.20	$72,228,016
Potatoes	600,916	4.8	2,885,025	18.40	53,084,460
Oats	1,665,073	.8	804,465	29.29	26,118,382
Turnips	278,280	16.7	4,643,457	[a] 5.20	[a] 24,146,945
Mangels	73,945	18.5	1,368,993	[a] 4.60	[a] 6,297,368
Barley	162,777	.9	143,218	35.89	5,342,004
Cabbage	39,068	10.8	422,533	.....	.....
Flax	50,266	.2	10,068	280.00	2,819,040
Wheat	40,613	1.0	39,059	36.20	1,413,936
Rye	8,982	.7	6,358	[a] 34.00	[a] 216,172
Beans	[a] 1,700	[a] 1.1	[a] 1,892	[a] 60.80	[a] 109,562

[a] Estimated.

Specific Crops, Acreage and Production in 1914.

The gains for 1914 were in the items of hides and mackerel. The hide trade will probably increase as prices rise in New England. If Ireland establishes a slaughterhouse industry in Munster and direct freight connections can be arranged, this will eventually be an important item of commerce. The mackerel trade is not likely to expand.

The total acreage of potatoes in 1914 was 583,056, which was rather less than the average. The yield was 3,445,770 tons, or well over the average, although lower than that in 1913. The price at the end of the year was 98 cents to $1.22 per 112 pounds, or 49 cents to 61 cents per bushel, as compared with 70 cents per 112 pounds, or 35 cents per bushel in 1913. The export of potatoes from Ireland in 1913 was 124,020 tons, valued at $2,301,008.

The hay yield was poor, owing to the dry spring, but was harvested in excellent condition in late July. The estimates show a yield of 4,268,627 tons in 1914 against 5,395,709 tons in 1913. The 1914 acreage of hay in Ireland was slightly larger than the 1913 acreage. Munster is the leading hay-producing Province, yielding in 1914 1,421,690 tons. The price at the close of the year was from $17 to $24 per ton, or higher, breaking all recent records. County Cork produces more hay than any other county in Ireland.

The grass-seed crop, which is of commercial importance, especially in the north of Ireland, was below average in yield, and owing to the interruption in Continental demand prices were low—80 cents to $1.20 per hundredweight (112 pounds).

The turnip crop in 1914 was 4,433,491 tons, as compared with 5,189,292 tons in 1913. The mangel production was 1,562,071 tons in 1914 and 1,628,514 tons in 1913.

Yield and Prices of Oats, Wheat, and Barley.

Oats showed a diminution of 20,055 acres in area and of 804,690 hundredweight in quantity. Wheat and barley, alone of all crops in 1914, made excellent seasons and exceeded 1913 yields. This practically means record figures, as 1913 was a banner year. The autumn-sown wheat wintered well, and was superior to the spring

wheat, sown in February. The following statement shows yields of grain by hundredweight in 1913 and 1914:

Provinces.	Barley.		Wheat.		Oats.	
	1913	1914	1913	1914	1913	1914
	Hundredweight.	*Hundredweight.*	*Hundredweight.*	*Hundredweight.*	*Hundredweight.*	*Hundredweight.*
Munster	797,749	811,416	203,478	225,558	4,279,930	4,190,478
Ulster	89,475	82,164	116,935	158,783	8,144,043	7,745,566
Connaught	78,822	73,231	81,109	72,377	1,890,807	1,804,422
Leinster	2,464,316	2,493,207	292,365	306,436	4,571,871	4,341,495
Total	3,430,362	3,460,018	693,887	758,154	18,886,651	18,081,961

The smallness of the acreage figures for all crops, in comparison with those for hay, may be pointed out. The average yields per acre in 1914 were: For wheat, 20.5 hundredweight; oats, 17.6 hundredweight; barley, 20.1 hundredweight; and for rye, 14.7 hundredweight. These were lower than the averages for 1913, except in the case of barley, but were well above the 10-year norms in each case. At the close of the year the prices were: Wheat, $2.37 to $2.43 per hundredweight; barley, $1.65 to $1.90 per hundredweight; and oats, $2 to $2.20 per hundredweight. These prices were, of course, decidedly better than those which prevailed in 1913. Barley prices, however, were low in consequence doubtless of the effect of the war on the brewing industry, and supplies exceeded expectations. Oats ordinarily range around $1.50 per hundredweight, or 47 cents per bushel, with white oats a few cents better than black oats.

The rye yield totaled 110,923 hundredweight in 1914, a 10 per cent increase over 1913. The dry season aided rye, a crop which in Ireland is usually consigned to swampy and wet ground. In increasing the sowings of wheat in the autumn of 1914 a good measure of oat land was used, while second-class grassland was broken up for oats, as the latter grow in soils which would not produce good wheat.

Official Seed Testing—Cabbage and Flax Crops.

Improvement of grain seeds is fostered by official testing. In 1913–1914, 6,626 samples were examined for purity and germinative power. Under the Weeds and Agricultural Seeds Act of 1909, the Department of Agriculture has secured promises from the 16 leading seed firms of Ireland not to sell inferior or adulterated seeds. The popular belief is that plant diseases are brought in by seeds purchased from the United States, and even from England. In Ireland the favored varieties of oats are Black Tartary, Mogul, and Abundance; of wheat, Queen Wilhelmina and Red Fife; and of barley, Archer, Beavens, and Goldthorpe.

The Irish cabbage crop is an important one. The 1914 yield was 449,841 tons, as compared with 461,790 tons in 1913. The 1914 acreage was 35,705, and the 1913, 35,080. The south of Ireland is the leading cabbage region, Munster alone producing 174,056 tons. The per-acre average for Ireland during the past 10 years has been 11.2 tons; in 1913 the average was 13.2 tons, and in 1914, 12.6 tons. Cabbage of Ireland do not grow in firm, tight heads, as in the United States, but in small, loose bunches, used (when for human consumption) as boiled greens.

The vast bulk of the Irish flax crop is grown in Ulster, which in 1913 produced 1,996,543 stone. In 1914 the yield was only 1,285,382 stone. This was due to both decreased acreage and decreased yield per acre. The acreage in 1914 was 49,250 against 59,305 in 1913, and the average production per acre was 28 stone in 1914 against 36 in 1913. At the close of the year the prospective shortage of flax in Ireland, due both to the short crop and to the difficulties of importing supplies from Russia, had doubled the price.

Prices and Markets of Farm Products.

The prices thus far given have been December quotations for 1914. The mean prices for the year, per hundredweight of 112 pounds, for certain of the crops mentioned were as follows: Wheat $2.12, oats $1.73, barley $1.77, potatoes 82 cents, hay 76 cents, flax $2.25, and grass seed $2.17. The prices for wheat, oats, and flax have not been exceeded since 1881. Index numbers, using the mean of the years 1906 to 1908 as 100, show potato prices at 98, oats at 119, barley at 101, flax at 135, grass seed at 82, and hay at 108.

The significance of the index numbers appears lessened by the fact that the grand total index number for Irish farm products and animal products in 1914 was but 114 as compared with 113 in 1913, although 1914, as a matter of common knowledge, witnessed record prices in almost every department. The low index number is accounted for by the fact that during the first seven months of 1914 prices generally ruled low, especially for swine and pork products.

Basis of Index Numbers—Price Table.

The relative weights of factors in building up the Irish index numbers, which, it may be mentioned, are a new feature in 1915, are as follows: Fat cattle 20, thin cattle 11, swine 18, butter 15, eggs 9, sheep 7, potatoes 7, oats 4, barley 3, wool 2, flax 2, hay 2, grass seed 1; total 100. This indicates the relative importance of the various sources of income to Irish farmers, since animals and animal products furnish 80 per cent of the total money received by Irish agriculturists. The comparative unimportance of tillage crops thus comes out very clearly.

The following tabular statement shows the "war prices" obtaining on an average from August to December, 1914, compared with prices during the same months of 1913 and with mean prices for the two preceding decades:

Articles.	1894–1903	1904–1913	August to December, 1913.	August to December, 1914.
Wheat.....cwt..	$1.53	$1.79	$1.81	$2.29
Oats:				
White.....do....	1.39	1.54	1.48	1.96
Black.....do....	1.24	1.36	1.32	1.68
Barley.....do....	1.66	1.78	1.79	1.76
Potatoes.....do....	.74	.81	.76	.81
Hay.....do....	.57	.75	.67	.85
Grass seed.....do....	2.39	2.83	2.40	2.18
Flax.....stone..	1.48	1.79	1.61	2.81

Tobacco as an Industry.

Tobacco growing in Ireland, while it dates from 1903 or earlier and has attained considerable proportions, can hardly be regarded as

definitely successful. In 1914 the acreage of tobacco in Ireland was 224, but all except 9¼ acres were under the supervision of the Department of Agriculture and were subsidized at $121.66 per acre. Of the last crop sold, that of 1912, only two out of six buyers expressed themselves as pleased with the quality. Nevertheless an appropriation of $309,875 has been made for a second 10-year series of tobacco experiments, which commenced in 1914. The 1914 tobacco season was regarded as rather unfavorable, the wet and dry seasons being each successively too pronounced; but the yield and quality were adjudged fair.

Pipe tobacco of broad-leaved American varieties predominates in Ireland, and an American drier has been installed at considerable expense in county Limerick. Irish tobacco is blended with Turkish and Virginia leaf with some success, and cigarettes are manufactured at Adare and at Dublin, although plug and pipe tobaccos are the usual products. The 1912 crop brought the growers about 11 cents per pound, with 14 cents per pound paid for cigarette varieties. Irish tobacco is remitted 4 cents from the United Kingdom excise duty, and further remissions are being earnestly sought.

Fruit Area and Production.

The area of fruit in Ireland in 1914 was 16,090 acres and in 1913, 15,734 acres, or 0.1 per cent of the total area. The general production of fruit is steadily increasing. The Province of Ulster produces from one-half to three-fourths of the total fruit crop.

The leading fruit is the apple, which occupies 8,551 acres. All other tree fruits combined occupy 555 acres. Gooseberries are the leading bush fruit, and are far more numerous and inexpensive than in America. The American gooseberry mildew is much dreaded here, and arrangements are made by which infected bushes are promptly destroyed, owners being compensated by the Department of Agriculture. Strawberries are widely grown, but at considerable expense. Acreage figures for small fruits in 1913 were: Gooseberries, 659 acres; strawberries, 636; raspberries, 338; currants, 419; and mixed fruits, 4,411. The fruit area of Munster in 1914 decreased by 85 acres, but the area in Ulster increased by 379 acres, in Leinster by 50 acres, and in Connaught by 12 acres.

Much fruit is being planted, largely under the auspices of the 38 horticultural instructors and demonstrators employed by the Department of Agriculture. Demonstration plots of one-eighth acre are laid out by these men and become the property of the owners of the land used. In 1914, 42,342 apple trees were planted, 17,080 currant bushes, 13,189 gooseberry bushes, and quantities of raspberries, plums, pears, and other fruits. This plan has been in effect for more than six years. The 1914 plantings were somewhat less than those in 1913.

Forest Crop—Lumbering, Etc.

The number of trees felled for timber in 1913 was 571,859, as against 903,341 in 1911; but the decrease was due less to a desire for conservation than to the state of depletion which had already been reached as to merchantable standing timber in Ireland. The number of trees planted in 1913 was 2,488,162, and the number of acres planted to forest was 1,154. While these figures show no little improvement over former years, it is apparent that far more rapid planting would

be requisite to restock the 300,000 acres of forest every 60 or 75 years, the minimum forest rotation period for Irish timber.

The principal wood grown in Ireland is larch, and other important conifers are Scotch pine, spruce, and fir. Among the important deciduous trees are oak, ash, beech, sycamore, and birch. The Government has encouraged timber-growing through the establishment of the Forestry School at Avondale, as well as by acquiring and planting moderately large areas, advancing loans, and the like. The Department of Agriculture has acquired 15,000 acres for forests, of which 1,000 have been planted. For one area an advance of $150,000 has been sanctioned, but is to be spread over 52 years. The expenditures are considered quite inadequate by the forestry enthusiasts, and there is agitation for increases, as well as for subsidies in certain wood-working trades. In some cases the department has cooperated with local or county development schemes.

Output of Irish Sea Fisheries Compared with Others.

In 1914 $1,187,115 worth of fish and shellfish were landed on the coasts of Ireland, as compared with $1,507,481 worth in 1913. For comparative purposes it may be stated that the value of all fish landed at Boston and Gloucester, Mass., in 1913 was $4,983,017. The Scottish take in 1914 was valued at $14,775,872, and that of England and Wales at $39,589,192, so the relative importance of Irish Sea fisheries is not great. The take by varieties in 1913 and 1914 was as follows:

Kind of fish.	1913		1914	
	Quantity.	Value.	Quantity.	Value.
Brill.....cwt.	392	$4,638	425	$5,012
Soles.....do	1,928	41,652	1,718	36,231
Turbot.....do	560	12,064	555	12,079
Cod.....do	29,337	79,446	18,499	79,528
Conger eel.....do	5,049	18,356	4,878	15,880
Haddock.....do	10,190	32,567	3,435	14,940
Hake.....do	5,115	30,240	3,988	25,306
Herring.....do	410,708	756,548	289,097	456,687
Ling.....do	7,213	26,630	3,165	11,110
Mackerel.....do	131,093	213,961	188,731	281,204
Plaice.....do	11,356	58,184	11,008	63,084
Ray or skate.....do	6,909	14,682	7,513	16,439
Sprats.....do	1,494	1,041	411	458
Whiting.....do	7,324	26,[illegible]	8,683	33,876
Other except shellfish.....do	16,509	10,586	15,221	40,144
Total.....do	636,807	1,367,219	546,947	1,092,098
Shellfish:				
Crabs.....do	199,209	5,110	137,653	3,917
Lobsters.....do	570,428	101,227	412,413	66,788
Mussels.....do	15,138	10,337	9,847	6,214
Oysters.....do	639,737	5,946	567,249	5,154
Other.....do	16,811	17,123	11,276	12,003
Total		140,262		95,077
Grand total		1,507,481		1,187,115

Vessels and Men Engaged in Fisheries.

The number of vessels engaged in the sea and coast fisheries in 1913 was 5,093, as against 5,198 in 1912. The number of persons employed was 18,074 in 1913, as against 18,975 in 1912. The number of men employed in the salmon inland fisheries in 1912 was 14,142; but this fishery is confined to the rivers and loughs or lakes, and is very irregular.

The decrease in the number of vessels is to some extent offset by the increase in power boats, there being now 147 power fishing craft, of which 33 are over 25 tons burden. Of the sea fishery craft 401 were first class; 2,681, second class; and 1,071, third class, while there were 540 rowboats over 18 feet long and 400 rowboats under 18 feet long. During the year ended March 31, 1914, the Department of Agriculture made loans aggregating $76,720 to 141 fishermen for the purchase of vessels, gear, etc. Since April 1, 1900, when the department took over this work, it has administered $396,830 in this way, with a loss of less than 1 per cent by bad debts. The loans are usually applied to substituting motor boats for sailing vessels.

The department, in addition to these loans and to mackerel curing and branding, is conducting a diversity of betterment efforts—grading and packing, net-mending classes, hatching of fry for stocking rivers, etc. It has had a measure of success in creating a home market in Irish cities and inland towns for Irish fresh fish, although a great share of the fresh fish still go to Billingsgate market at London.

Herring and Mackerel Fisheries.

The leading fishery, that of herring, had a decidedly adverse season in 1914; and cod, haddock, and prime fish, as well as shellfish of all kinds, likewise did poorly. On the other hand mackerel, in which this consular district is principally interested, had a normal season, especially during the early months of the year. The general trend of the mackerel industry is downward, while the herring fishery is a growing one. The herring industry is located on the north and east coasts of Ireland, and is in effect an adjunct of the Scottish herring fisheries. Herring comprise nine-tenths of the total take of fish in northeastern Ireland, and are sold largely in Continental markets. The Irish Crown brand of pickled herring also finds ready sale on the Continent. This industry was commenced and encouraged by the Government, and in 1913, 8,541 barrels of this brand were put under Government auspices. The average price of herring in 1912 was $1.34 per hundredweight, in 1913 $1.84, and in 1914 $1.63.

The mackerel fishing, four-fifths of which is conducted on the south and west coasts, ranks second to herring, and is of particular interest because the cured mackerel go almost wholly to the United States. The increasing spring fishing of Cornwall, in England, fills the English markets and forces the Irish spring mackerel over to America. As the spring mackerel are a poor grade this is not fortunate.

The Government has demonstration stations and is curing mackerel for the United States in the Scandinavian manner, but it is not being imitated by the fisher people. No. 3 mackerel cured in this way bring $7.75 per barrel f. o. b. Liverpool for Philadelphia. The average price of mackerel in 1912 was $1.31 per hundredweight and in 1913, $1.59. In general, in New England Irish mackerel compete unfavorably with Norwegian mackerel, and it is said that the dissatisfaction of Irish fish dealers with certain practices of American dealers has discouraged the Irish mackerel industry.

Shellfish and Inland Fisheries.

Among the shellfish of Ireland lobsters predominate, but oysters are of first importance in this district. The governmental statisticians admit that the figures given in the shellfish industry comprise rather less than one-half of the actual take of shellfish, and in the case of oysters probably less than one-third of the actual take. The actual estimated shellfish product of Ireland in 1913 is valued at $310,077, and the value of oysters at $33,866. These figures should be read in conjunction with those in the table on the preceding page, which show the quantity and value of Irish sea fisheries for 1913 and 1914, as reported by the Government. The east coast of Ireland supplies one-half of the oyster take, while Munster furnishes the remainder. The mussel beds are at Castlemaine Harbor.

The principal inland fishery is that of salmon. No total figures are prepared, but Billingsgate alone took 7,760 boxes of salmon from Ireland in 1913. The coastal salmon take, by drift nets, in 1913 was 3,822 hundredweight. The lowest price to fishermen was 14 cents per pound and the highest in market $1.65 per pound.

The eel fishery, centering at Coleraine, furnishes an annual take valued at $75,000, of which the major part finds its way to England. The pollen fishery is not inconsiderable, as 124 tons of pollen were carried by Irish railways in 1913.

Live-Stock Industry—Cattle Raising.

The south of Ireland is essentially a live-stock country and Ireland's chief export trade lies in shipping cattle to England. The abundance of fresh pasturage and the mild winter climate make cattle raising profitable. Ireland has more cattle in proportion to its area than any other country in Europe, having an average of 242 head per 1,000 acres, as compared with 238 for Denmark, 156 for England, 112 for France, and 61 for Scotland. If the south of Ireland were taken separately, the figure would be still greater.

The following statement shows the number and kind of live stock in Ireland in 1913 and 1914:

Animals.	Number.		Animals.	Number.	
	1913	1914		1913	1914
Horses	614,482	619,028	Sheep	3,620,724	3,600,581
Mules and jennets	30,338	30,942	Swine	1,060,300	1,305,638
Asses	243,339	244,557	Goats	240,348	242,243
Cattle	4,932,625	5,051,645	Poultry	25,701,342	26,918,749

The number of cattle in Ireland in 1889 was 4,094,174, and in 1914, 4,932,625; an increase of 20 per cent during the 25-year period. The milch cows form about one-third of the cattle; the number in 1914 being 1,638,929. The beef cattle number 3,293,696, and as in the case of milch cows this is a record figure. The favored beef breeds are Shorthorn, Aberdeen, Angus, and Hereford. In 1914 there were 1,185 registered bulls standing in Ireland under governmental subsidy.

Ireland exports slightly more than one-seventh of her cattle each year and uses about 250,000 for home consumption, thus disposing of

approximately 1,000,000 animals per annum. There is constant discussion as to the advisability of slaughtering these animals in Ireland instead of shipping them to English beef firms which derive the profit of manufacture and give employment to English labor. Lack of capital and initiative are deterrents, and it is also maintained by the landed estate proprietors that English grass is superior to that of Ireland and consequently the fattening process can most economically be carried on in England. Inspection on farms for bovine diseases is carefully carried on by the Department of Agriculture. In 1913–14 tuberculosis was reported on 1,047 different premises and 893 cattle were slaughtered by order.

Foot-and-Mouth Disease.

The epidemic of foot-and-mouth disease which occurred in 1911–12 recurred with much more disastrous effect in 1914; and from the early spring until the outbreak of the war the leading industry of Munster was paralyzed. The disease appeared in England late in 1913, and on January 30, 1914, the first Irish case was reported. On June 5, 1914, the loss to the cattle trade of Ireland was estimated at $9,000,000.

The source of the outbreak remains in doubt, although officials have expressed the view that drovers returning from English lairages communicated the infection to Irish stock. It has also been suggested that straw packing brought in with Continental goods may have carried the disease. Considerable interest was aroused late in the year when the principal of the Royal Veterinary College at Dublin announced his conclusion that the epidemic was not foot-and-mouth disease but a less noxious mouth affection. This statement was based on the absence of such symptoms as vesicles, loss of weight, lesions, foot troubles, and salivation.

Store cattle three years and over were in the spring of 1914 worth $57.67 per hundredweight; in the summer, $46.54, and in the last quarter of the year, $61.74. Prices of fat cattle showed the same trends, although less pronouncedly; two to three year old fat cattle bringing $73.91 per hundredweight in the early spring, $72.87 in midsummer, and $76.22 in the autumn. After the outbreak of the war shortage of feedstuffs was feared and prices of meal and oil cake rose to a point which caused farmers to dispose of their fed animals. For this reason the price of beef did not show the increases which might have been anticipated, although the rise was considerable. Even the British Government was solicitous because young Irish stock was sold in such large quantities.

Horses and Mules.

The number of horses in 1914 was 614,482. The type is a serviceable, big-boned, utility standard, neither so light as the American farm horse nor so heavy as the English and Continental breeds. Driving and saddle horses for hunting and racing are so numerous as to affect the type of the industrial horses. Irish hunters are famous, and counties Cork and Tipperary are preeminent in this breed, due to the calcareous soil, which, as in Kentucky, makes for bone strength. Ireland has always supplied troop horses, van horses, and general utility horses for England. These horses have a reputation for staying power and adaptability, owing to the diverse and constant uses to which they have been put by Irish farmers and

country gentlemen for generations. They are known as sure-footed, especially where a strain of the Connemara pony exists, and they have short, strong backs. Near the towns there are numbers of Clydesdale and Shire animals. A pony type, similar to the Connemara, has been developed in the glens of Antrim in the vicinity of Cushendall.

The total number of horses shipped from Ireland for military purposes to the end of 1914 was officially estimated at 50,000, and unofficially at a much higher figure. The price has risen from an average of $210 to $245 for army animals, and prices of all horses have risen proportionately. There are a number of inferior horses still to be had as low as $60.

The common donkeys cost about $10, and the mules, a very small breed, about $40. Though larger than donkeys, these mules do not compare with the American mules; they are largely of Spanish strain. In order to improve the donkeys, upon which so many remote communities in Ireland depend, the Department of Agriculture has placed 25 stallion asses in different localities to remain indefinitely.

Decline in Number of Swine.

The falling off in the number of swine in Ireland in 1913 was conspicuous, the total in that year being 1,060,360, as against 1,323,957 in 1912; the year 1914 showed a total figure of 1,305,638, a recovery of 245,278. Munster alone had an increase of 80,600 swine. The principal fattening stuff for swine in Ireland is corn meal from Argentina, and its price increased immediately after war was declared, consequently farmers killed large numbers of pigs. An increase in prices of swine from $13.13 per hundredweight to $17.03 at once occurred, and even breed sows were sold for bacon before the buyers noticed that the price of corn meal had forced the sellers into their hands.

As similar conditions as to foodstuffs were occurring in Denmark, the price of pork and bacon has steadily declined. Governmental warnings were frequent during the latter part of 1914, but had little tangible effect. During the quarter ended with December, 1914, the exports of live swine from Ireland to England aggregated 84,490 head.

After repeated experiments it has been demonstrated that the White Yorkshire, crossed with native Irish pigs, produces the best bacon, and for the past 25 years boars of this variety have been imported. The South of Ireland Bacon Curers' Pig Improvement Association has three breeding establishments—at Limerick, Cork, and Waterford—and for many years has placed about 300 boars each year among country droves. The Congested Districts Board has distributed large numbers also; and the Department of Agriculture has been operating a herd book and granting county premiums for best boars. Through the county committees on agriculture and the Congested Districts Board, the department in 1914 kept 561 blooded boars standing in Ireland at subsidy premiums of $15 to $25 each. These were mainly Yorkshires, but in Ulster there were 122 White Ulsters. Experiments have shown that Suffolk boars in Ireland give an overfat type, while Berkshire and Tamworth fail to "nick" with Irish native strains.

Importance of the Bacon Industry.

The most important industrial activities of the south of Ireland are based upon such farm products as bacon curing, butter making, wool manufacture, distilling and brewing, tanning, and the manufacture of condensed milk. In addition there are flour milling with foreign wheat, shoe manufacture, the feather and down trade, ship and machine repairing, chemical works, vestment and regalia manufacture, lace making, etc.

The bacon industry results in the exportation of 995,257 hundredweight of bacon and 120,419 hundredweight of hams (1913), and fully one-half of this goes out through Cork, Waterford, and other ports of Munster. The center of the industry is Limerick, and Limerick hams have an excellent reputation even in America, to which many shipments are invoiced each year by the consular agency at Limerick. The methods are modern, consisting of injecting pickle and saltpeter and mild salting at 42° F. When smoked, it is done in England, as the process would unsuit the hams for transportation. The livers were formerly sent to Germany for use in sausages. The number of firms in this trade of bacon-curing is fully 30, in addition to one or two cooperative associations and much private curing.

The price paid to farmers for pork in the December quarter of 1914 was $14.11 per hundredweight, as against $14.64 in the last quarter of 1913, being the first decrease for years. The price from 1903 to 1912 averaged $12.35 per hundredweight, while the 1913 average was $14.62 and the 1914 $14.08 per hundredweight. In some cases the firms buy direct from the pig raisers, which is convenient to both parties. Ordinarily, however, the buying is done at pig fairs, whither the farmers drive their swine and cattle. This is thought to insure competition among bidders, but in practice the bids are nearly always identical, and the bacon firms claim that they are imposed by conditions in the London market.

The chief purveyors of bacon to England are Denmark, the United States, and Ireland, furnishing, respectively, 2,334,945, 1,803,371, and 995,257 hundredweight.

Sheep and Goats in Ireland.

Sheep and goats are the only farm animals in Ireland which are not multiplying in numbers. Sheep fell from 4,133,358 in 1909 to 3,620,724 in 1913, and 3,600,581 in 1914; while goats fell from 299,120 in 1903 to 242,243 in 1914. The wool from Irish sheep is largely manufactured in Ireland, but as Irish mills do little spinning, much of the wool goes to English spinning mills before it is woven in Irish factories.

The most distinctive Irish variety of sheep is the Roscommon, which forms the staple of the great autumn sheep fairs at Ballinasloe, Tuam, and Banagher. The Roscommon sheep are allied to the Leicesters, but have a separate flock book. They are slow in maturing, have well-mixed mutton, good size, and fine, long-stapled wool. In the southeast of Ireland the Wicklow Cheviots are notable; and in the north Scotch Hornies of poor grade. Highland black-faced sheep are much used in the mountains of western Ireland. Shropshires, Lincolns, and Downs are crossed in from England occasionally.

For unfattened sheep between 1 and 2 years old, in 1914, the price advanced from $9.07 per head, in the first quarter, to $10.04 per head in the last quarter. The price of wool, which in 1908 dropped from 23 cents per pound to 15 cents in Ireland, has since recovered, and in 1913 was 23½ cents per pound. In 1914 it rose sharply, and during the autumn averaged 28½ cents per pound. These prices are for washed wool, the unwashed product being about 6 cents lower per pound.

Much attention has been given in recent years to sheep dipping, which is compulsory by law, and in 1914 it was required that every sheep be dipped twice in the place of once, as formerly. Expensive dipping stations are now to be seen in every country community, and sheep must be dipped between August and November; not less than 7 or more than 14 days to elapse between the two dippings. While the scab records are improving, they are much inferior to England's, there being 15.3 cases per 1,000, while England has but 1 case per 1,000.

Exports of Woolens to United States—Homespun Industry.

The declared exports of woolens from Cork to the United States in 1914 were only $3,493, but a larger quantity must have gone indirectly through British dealers. The army contracts, secured by Irish woolen mills, have kept the factories working overtime, and at the end of 1914 they had orders for many months ahead. The price received for their products at the end of 1914 was about 15 per cent higher than that in 1913. On the other hand, there were some difficulties. The profits on Government work were very low, and the need of performing this work diverted the energies of the woolen industry from capturing vacant markets. The price of woolen yarn, which is imported from England, rose from 52½ cents per pound to 66½ cents per pound. Dyestuffs rose in price above the 60 cents per pound at which they sold prior to the war. The plans for establishing a domestic industry to relieve the dye situation did not materialize.

The homespun industry is not unimportant. In counties Donegal, Galway, and Kerry there are cottage looms, and Donegal is said to produce $3,500 worth of homespun per month. Synthetic dyes are not used, but instead lichens, peat soot, iris root, madder, and indigo. The weakness of the homespun industry is lack of designing capacity, and this extends to the factories as well. Schools of design have been established, and a scheme for sending Irish workmen to English mills to learn designing has also been put in operation.

Statistics of Poultry—Egg Shipments.

The number of poultry in Ireland increased from 25,701,342 in 1913 to 26,918,749 in 1914. The number of turkeys in 1913 was 1,133,474; geese, 1,731,934; ducks, 3,399,301; and ordinary fowl, 19,436,633. According to 1914 figures for all varieties of fowls the leading province is Ulster, with 10,153,633, while Munster has 6,311,391; Leinster, 5,579,447; and Connaught, 4,874,278. In county Cork the total number increased from 2,327,327 in 1913 to 2,473,445 in 1914.

The exports of slaughtered poultry from Ireland in 1913 were markedly less than in 1912, in spite of the increase in numbers on farms, because the increase is used mainly for egg production. It is

said that the Irish poultry is now much more presentable than formerly, and that fancy prices are commanded for it in England.

Ireland comes next to Russia in supplying England's imports of eggs. The figures for 1913 were: Russia, 11,453,277 great hundreds (great hundred=10 dozen); Ireland, 6,398,235; and Denmark, 4,264,943 great hundreds. While the export figures for 1913 is typical of normal years, the 1914 exports were probably larger, as the Baltic and Danish egg supplies of England were affected by the war. The price of eggs in Ireland in December, 1914, was $3.98 per great hundred, as contrasted with $3.46 in 1913, and $3.24 in 1912. These are, of course, winter quotations; the annual average price for Ireland in 1913 was $2.29 per great hundred.

The preferred breeds of hens for laying purposes are Minorcas and Leghorns, and for general utility Plymouth Rocks and Orpingtons, while Indian Runner ducks, Emden geese, and American Bronze turkeys are predominant. The Department of Agriculture maintains 39 instructors in poultry raising, and in the fiscal year 1913–14 these visited 18,966 farms and conducted 139 lecture classes. The department also conducts a scheme whereby selected subsidized farms, not nearer together than 3 miles, keep thoroughbred poultry and sell eggs for settings at fixed low prices. There are 1,882 of these stations. Egg-laying competitions are conducted, 1914 being the second year for this plan and showing unexpectedly good results.

Bees and Apiculture.

The bee statistics are only fragmentary. According to the best data there were in 1913, 27,708 stocks of bees, yielding 463,167 pounds of honey. The majority of the hives have movable combs, and most of the honey is sold as section honey.

County Cork is the largest producer of honey and beeswax in Ireland, and a branch of the Irish Beekeepers' Association is located at Cork. This organization maintains a committee of marketing and control to aid members in distributing their product. It is promoting systematic grading and expects to gain the privilege of using the Irish trade-mark. The Department of Agriculture is also aiding apiculture, 38 of its horticultural experts serving also as bee experts. In 1914 it established a new honey depot at Cork.

The Butter Industry—Methods of Trade.

Butter is one of the foremost agricultural products of Ireland, ranking second to that of cattle as an export and slightly surpassing eggs or pork products. The exportation of 725,568 hundredweight in 1913, valued at $18,179,516, was rather above the average. The trade of 1914 has been excellent. England's importations of butter in 1913, including the supply from Ireland, amounted to 4,864,390 hundredweight, so that Ireland's share was not quite 15 per cent; this share is exceeded by that of Denmark, Australasia, and sometimes by Russia. Irish creamery butter, according to prices ruling during the autumn of 1914, seems to be regarded as slightly inferior to Danish and Scandinavian butter, but superior to Russian and Australasian.

Ireland's proximity to England gives an advantage in the butter and egg trades, the products reaching consumers in a fresher con-

dition; and in recent years the quality of Irish butter has improved strikingly. Creamery butter contains about 13 per cent of moisture, although firkin butter has a higher percentage. Under the food and drugs acts of Ireland in 1913 there were 5,092 samples of butter taken by the authorities, and only 119 cases disclosed violation of the acts. Of milk, out of 8,447 samples there were 387 violations. Another reform in Irish dairying is the introduction of winter butter-making, which the mild climate is thought to render feasible. A bonus is granted to creameries on their winter production, and they are guaranteed against losses incurred by paying farmers at the rate of 10 cents per gallon for milk during January and February and 9 cents per gallon during March. The theory is that if the summer prices to farmers could be kept down slightly the creameries could afford to operate all winter and furnish the farmers profitable employment.

There are at least 268 listed creameries in Ireland, of which nearly one-half are in this consular district. Cork is one of the largest butter centers in the world, exporting about 13,000 long tons of butter by water, in addition to large quantities by rail. The official figure for 1913 was 245,965 hundredweight, or over one-third of Ireland's exports. The standard butter package is a 56-pound box or a 28-pound box shaped like a truncated pyramid. "Kiels," or 112-pound casks, are also used; both packages have been standardized.

Creamery managers and dairymaids are trained in the Ballyhaise station, the Munster Institute, and the Ulster Dairy School. Premiums are granted for the breeding of additional registered dairy cattle, and in 1914 out of 421 cows and 138 bulls for which the premium was sought 344 cows and 73 bulls received it. The 79 cow-testing associations, already alluded to, receive grants based on the number of cows tested, and two-thirds of the clerical expenses are defrayed if there are 100 cows in the association. Any cow not yielding 400 gallons of milk per annum is to be eliminated. Of these associations, 45 are in this consular district.

Cheese and Condensed Milk—Kerry Cattle.

Cheese making is a minor industry in rural Ireland, not proving as remunerative as butter making. There are at least five factories in operation. Where the farmers prefer to sell whole milk, i. e., where they do not desire the separated milk returned for swine feeding, cheese factories take the place of butter factories. The existing factories have recently increased their output and new ones are being established, so that the industry must be regarded as a growing one. The principal brands are Cheddar, Derby, and Caerphilly, and as recent tests have shown that 1 gallon of milk gives 1.24 pounds of Caerphilly as against only 1 pound of Cheddar, the latter is likely to lose its predominant position. With reference to obtaining the utmost value from milk, it is said that the vending of milk to consumers in cities is the most profitable method of disposing of it in Ireland, a vendor receiving $14.19 for 50 gallons if he retails his own milk, while a farmer who takes 50 gallons of milk to a butter factory receives only a value of $5.94.

One interesting feature of dairy work in Ireland is the Kerry breed of black cattle developed in the mountains of the western districts. These animals evolved their light weight and thriftiness from the

environment of the rough country, and in their small size, neat build, and excellent milking qualities they are comparable to channel breeds, such as the Jersey. They can live on very scanty fare, and it is not unusual for a cow less than 40 inches high or 300 pounds in weight to give 8 "pottles" or 4 gallons of milk a day on fare that would starve a Jersey. The herd book insists on pure black color, but thousands of animals in the west of Ireland have all the Kerry characteristics without the color.

An offshoot of the Kerry breed, and like it mainly confined to this consular district, are the Dexters, a round-trunked, heavy breed of short stature which retains the milking qualities of the Kerry, but make better beef when fattened. Owing to the short, stubby appearance of these variants they are popularly described as "Tipperary beef down to the heels." They were produced by crossing, over half a century ago, with Shorthorn or Dutch stock.

Brewing of Stout and Porter—Consumption of Hops.

Ireland produces slightly more malt liquor than does the State of Missouri, and slightly less than Wisconsin. The brewing industry in Ireland is one of the oldest, best-established, most famous, and most profitable which the island possesses. The number of barrels (36 gallons each) brewed in 1911 was 3,762,629, and at the present time it is probable that at least 4,000,000 barrels are brewed annually. Prior to the war, the tax on malt liquors at a gravity of 1.055 degrees was $1.88 per barrel; so that the 1911 total yielded $7,520,000 in revenue. Since the war the tax has been increased to $6.08 per barrel, and the price of beer to consumers has been increased by 2 cents per pint bottle. In 1914 there were at least 29 breweries in Ireland, of which only four or five did not manufacture stout or porter. Ireland's export of stout in 1913 was 859,056 hogsheads, valued at $11,043,743, but this was mainly from Dublin. There are 99 malt houses in Ireland, four-fifths of them being in Leinster. Of the total, 36 are worked by water or hand power. They malted 2,732,301 hundredweight of grain.

It is estimated that about half of the Irish barley crop is annually converted into malt and used in Irish breweries; while a somewhat smaller quantity of the malt used is imported, usually in the form of barley. In 1913 the barley imported was 1,521,715 hundredweight, and the malt 746,069 hundredweight; while the exports were not a tenth as large. The demand for barley for malt has kept the acreage of barley up better than that of any other grain, especially in limestone regions. Imports of barley are from Russia, the United States, and the Levant. The roasted malt which gives the stout its flavor and sweetness, is said to be used by the Irish brewers without sugar, and this is claimed as a distinction. The export stout is fortified with alcohol and is considered less wholesome than that consumed in Ireland. Ale is brewed in a number of plants.

The hops used in Irish breweries, about 80,000 hundredweight a year, are imported chiefly from England, although a good share originate in California or Germany. The average price in 1913 was about $29 per hundredweight, and in 1914 the price was near $25 per hundredweight. Soft water is required for stout and hard water for ale.

Consumption and Shipments of Distilled Liquors.

During the fiscal year ended March 31, 1913, there were entered for home consumption in Ireland 2,642,554 proof gallons of distilled liquors, having gravity of 0.923077 degrees at 51° F.

Pot stills are more prevalent in Ireland than in most countries where distilling is conducted on a large scale, and the usual mash is about 15 per cent oats, 40 per cent malt, and 45 per cent barley. In patent stills, which now produce almost one-half of the liquor made in Ireland, the mash is 60 to 75 per cent maize and 15 per cent oats; sometimes rice, rye, or barley is used in place of the maize. It is evident that pot-still brewing benefits agriculture, as it uses native grain, while patent steam stilling encourages foreign grain. Irish distilleries dry their malt with anthracite, while Scotch distilleries use peat; thus Irish whisky does not have the smoky flavor of Scotch.

In 1913 the export of whisky was 7,415,999 proof gallons. As the imports of spirits were but 759,798 proof gallons, it is evident that the home consumption of spirits in Ireland is not heavy. In fact the excise figures given above, 2,642,554 gallons, shows less than three-fourths of a gallon per capita. The export of spirits from Ireland shows little variation, though the quantity retained for use has fallen off by about 30 per cent in 10 years. The average inhabitant of Ireland takes about 18 gallons of stout or other beer per year.

The imports of whisky from Ireland into the United States during the year ending June 30, 1914, were valued at $324,278, while the corresponding figure for Scotch whisky was $1,907,010. If the Irish whisky makers were in a position to do the extensive advertising in America which their Scotch competitors do, it is said that the quality of their product would enable them to equal the Scotch trade.

The Leather Industries.

A quarter of a century ago tanning and leather manufacture were leading industries in the south of Ireland, and all of the shoes, harness, and saddlery for domestic use were made in Ireland. The equipment of the great English factories with modern machinery, however, flooded the Irish market with factory-made goods, and the conservative Irish tanneries and leather-working enterprises were gradually forced to close. A few effected a transition to modern methods and thus survived, but there is a demand in all the good-sized cities and country towns for old-fashioned bench-made goods, which are produced at shoe and saddlery shops to suit the customer.

Of the 8 or 10 shoe factories in Ireland, 3 or 4 are in this district; the largest, a Cork factory, having 300 or more operatives. Out of about 50 harness and saddlery shops probably 12 are in Munster. Both shoe factories and saddlery establishments had a prosperous year in 1914, owing to war contracts. The shoes manufactured in Ireland form only a small proportion of those used, as the imports in 1913 were 158,485 hundredweight, valued at $8,146,512.

Leather and Hide Trade.

There are about 20 tanneries in Ireland. The leathers produced are mainly of coarse, heavy qualities, used for soles, harness, brogan uppers, etc. The prices have been steadily rising, and since the war

they have shown greater increases. Irish sole leather, formerly 46¼ to 54½ cents per pound, rose to 71 to 85 cents per pound. Upper and welt leather and other high grades are not obtainable in Ireland, although some Indian kips are tanned here and heavy upper leather is produced. Curried welting costs from 43 to 49 cents per pound and rose to 73 to 97 cents per pound. Upper willow and box-calf leather advanced from 26½ cents per square foot to 40 and 48 cents per square foot.

The hide trade, as subsidiary to the cattle trade, is hardly as large as might be expected, due to the exportation of Irish cattle on the hoof rather than as slaughtered beef. The exports of hides and skins in 1913 totaled 237,042 hundredweight, valued at $3,578,902, against an import of only about 6,000 hundredweight. As to leather the situation was reversed, the exports being only about 6,000 hundredweight, while the imports were 72,000 hundredweight, valued at $2,750,010.

The trend of hide prices is likewise upward and the New England prices exerted a strong influence on Irish calfskins, especially in the early part of 1914. During the first seven months of 1914 the exports of hides and calfskins invoiced from Cork to America were 230,089 hundredweight, valued at $38,765; while during the entire year 1913 they were but 209,734 hundredweight, worth $31,279. The trade was cut off early in August 1914, by the British war embargo against the exportation of hides and leather; otherwise the 1914 figures would more than have doubled those of 1913. When peace returns an active trade seems probable; as at the end of 1914 the Irish shippers were anxiously seeking special permits to send to America certain classes of calfskins which are not used by British factories. The bulk of the hides from this district are normally a medium soft grade, used for cheap upper leather and poorer grades of rough soft leather.

The Lace-Making Industry.

The lace-making industry of the south of Ireland is somewhat difficult to treat, as the actual work is largely done in homes or in small shops whence the lace is collected, by agents or organizations, and sold. The sales agencies also direct to a large degree the designing and production. There are 132 lace dealers or factories listed for Ireland, of which approximately one-half are convents, abbeys, or sisterhood schools.

Lace making, like the homespun industry of Donegal, owes much to the interposition of social enthusiasts and governmental instrumentalities. Schools of design, and cooperative sales depots, have been fostered in recent years to effect the much-discussed revival of home industries. In one year the Congested Districts Board sold nearly $100,000 worth of lace for poor people in the west of Ireland.

The total output of Irish lace is not easy to estimate. The exports in 1913 were stated at $328,500 in value; but this estimate is probably low. About one-third of the total is made in Munster, and of the cottage-made lace probably one-half is made in this district. The predominant type of Irish lace is probably needle-point, of which there are a hundred variations. Raised needle-point is a substantial line, and Youghal lace is another popular needle-point. Limerick lace is of the tambour and run varieties, while Carrickmacross is principally appliqué on net.

Making of Baskets, Souvenirs, Clothing, Etc.

The basket and wicker furniture industry in Ireland is noteworthy. The Irish osier areas, 400 acres, are insufficient to supply willow rods for raw material, but the war, in stopping Continental sources of rods, has increased the value of Irish osiers. The work is largely in the hands of blind asylums, but in every country community there are basket makers who from native willows make rough baskets for carrying farm products, peat, manures, etc.

The preparation of souvenirs from bog oak taken from turbaries, and of walking sticks from blackthorn and myrtle, are promising industries. So-called bog oak souvenirs were to some extent imported from Germany prior to the war, for sale to tourists in Ireland.

The making of wagons and other vehicles was formerly a thriving occupation throughout Ireland; but, like so many others, it has disintegrated before steam-power production in England. Over 100 coach builders are still shown by the directories, but the majority are devoted mainly to repairing and wheelwright work.

The making of ready-made clothing is a local industry in Irish cities, as female labor is excessively cheap. At least one establishment in Cork employs over 100 persons in its clothing shop, and there are innumerable tailor shops for every grade of work, since ready-made garments are by no means as universal as in America.

A cotton and flax spinning and weaving mill at Cork employs several hundred persons—at times over 1,000—and has probably gained as much from its war contracts as it has lost through the shortage of flax. It is the only establishment of its kind in the south of Ireland, and is under the direction of management originating in the north. No wool is handled, and spinning is an important feature of the work. These two elements distinguish it from the familiar textile mills of Munster.

Deposits of Coal and Peat.

Ireland's coal, while widely scattered, is in shallow deposits and is a low-grade, semibituminous anthracite. With the exception of possibly 80,000 or 100,000 tons produced annually in county Kilkenny, Ireland imports her coal from Wales, Lancashire, Yorkshire, and Ayrshire. The shrinkage of freight facilities in the autumn of 1914, with the large governmental demand for coal and the enlistment of miners, raised the price to Irish consumers from $6 per ton prior to the war to $8.50 per ton at Christmas, an indication of the further increases to be expected in 1915. It is a curious fact that the coal dealers of Cork are not able, owing to the strength of working-class influence, to install modern discharging machinery, although in 1914 they so far modified this disability as to use steam winches on board coal steamers for raising the coal from the holds.

The anthracite imported is for industrial uses, as suction-gas power is rather favored in small factories here. It is said that 1 pound of coal gives 1 horsepower per hour, a very inexpensive arrangement. Some steaming coal is sold to vessels at Cork at slightly under household rates, but the vast bulk of the coal trade is for household use. It is possible that American coal may be sold in Munster before the close of 1915, as this part of Ireland is virtually as remote from the British coal fields as are the Continental countries, which have felt

the coal shortage more acutely than Great Britain. The five Irish coal mines at present in operation are hardly likely to be increased, because the energy and capital needed seem to be lacking.

Peat is not used in Ireland except under necessity, although in the western sections active turbaries are frequently to be seen. There are 1,576,000 acres of flat bogs in Ireland, and at the present rate of consumption the supply is inexhaustible. Governmental experiments, however, appear to show that peat is hardly worth developing.

Ireland is Rich in Stones.

Ireland is poor in metals but rich in stones. Munster possesses marble, slates, and limestone of excellent quality. The slates of Clonakilty and Carrick-on-Suir are used both for the humblest cottages, where they are fast superseding thatch, and for the best class of buildings. The tough slate flags of Valentia and of southwest Clare are widely used for paving. The carboniferous limestone is everywhere present, often in grades excellent for building purposes. Where it becomes dolomitic the result is marble; and the red marbles, merging into gray and pink (calcite), of Little Island, Middleton, and Fermoy, are of acknowledged value. The limestone is not largely burned for lime, as was formerly the case, and farmers pay high prices for the much-needed lime fertilizers.

The Road Board (British) grants aid for road improvement, and in a recent quarter advanced Irish communities $390,016, of which $347,710 was nonrepayable and noninterest bearing. Igneous road metal of suitable grade is present in Ireland, but is much more difficult and expensive than the limestone. Composition paving is manufactured at Macroom, Skibbereen, Lisconner, Limerick, and Tipperary. The black marbles of Menlo and the green marbles of Connemara lie to the northward.

The imports of stone into Ireland are mainly slates from the enormous and well-managed quarries of Llanberis and Ffestiniog, North Wales. The total in 1913 was 24,296 tons, valued at $493,638, including some slates from France. The exports of marble, granite, and limestone in 1913 were 135,552 tons, with a value of $582,992.

Magnesia is exported in small quantities to the United States, the value in 1914 being declared at $3,689. It is now prepared largely from sea water, as the springs which originated the industry are exhausted. There are two manufacturing chemical works at Cork, turning out a wide variety of chemicals and preparations.

Miscellaneous Industries.

The naval dockyard at Haulbowline Island, Queenstown, is one of the largest industrial establishments in Ireland, although not a commercial plant. In 1914, prior to the war, it had employed 1,350 men at one time, or 277 more than in 1913, and had refitted five cruisers, one gunboat, four torpedo boats, and two tugs. The war meant an increase rather than a decrease in its activities.

The total gas consumption in Ireland in 1914 was 5,974,347 cubic feet, and this was furnished by 110 gas undertakings, of which 84 were privately owned and 26 were public utilities. The latter furnished 52 per cent of the total gas, owing to the magnitude of the municipally owned Belfast gas works. Scotland has 256 gas undertakings and England 1,235.

Proposals have been made for glass manufactories to be directed by Belgians; for increased furniture and basket making; for straw weaving; for a revival of tanning, and for a toy industry. The new companies actually formed in Ireland in 1914 were 149 in number, with an aggregate capital of $6,024,727.

Ireland's Growing Financial Strength.

Commercial bank deposits in the nine joint-stock banks and their branches operating in Ireland rose from $172,420,100 in 1894 to $301,504,000 in 1914, an increase of just 75 per cent. During the same 20 years Irish savings deposits increased from $32,250,296 to $77,479,547, an increase of 140.2 per cent. The deposit figures for June 30, 1914, in each case show a normal and substantial increase over those for 1913. The only qualifying feature is the tendency of Irish banks to invest their funds in English and foreign securities rather than in the assistance of home industries; but at least two of the large Irish institutions in their annual reports for 1914 announced their preparedness to give friendly consideration to any proposals for expanding local enterprises.

Banking statistics also show good growth in stocks of coin held and in the circulation of bank notes. The six Irish banks of issue had outstanding in June 1914, notes to the value of $40,090,227, being larger by $7,333,815, or 22.4 per cent, than 10 years previously. The decade increase of coin held by these banks was 48.3 per cent, the 1914 figure standing at $24,332,500; and great quantities of coin not of issue are also held by the three banks.

The bank year of 1914 was fairly good, the note circulation having been markedly strong. The system of branch banks, similar to that which Americans associate with Canada, appears to have been well adapted to meet rural demands for credit. The leading bank of the south of Ireland is the Munster and Leinster Bank, the deposit and current accounts of which increased during the last six months of 1914 by $2,151,000, and now stand at $35,081,200.

As reflecting the general industrial conditions, the stock market records may be deemed only moderately gratifying. For several years the prices of securities in Ireland have been inclined to fall away. The year 1914 opened more hopefully, and during January and February trading in shares was brisk. The stock markets suspended during the first five months of the war. The reopening of the Cork exchange at the end of the year showed that while prices had shrunk slightly, the diminution in value of local and other Irish securities was by no means so great as might have been anticipated.

Public Revenues and Utilities.

A further barometer of prosperity may be found in public revenue. The estimated net revenue collected by the imperial government in Ireland during 1913[a] in the form of customs, excise, and other dues was $52,224,845, as compared with $45,017,560 in 1909. The income tax, included in the above, has increased from $4,958,219 in 1909 to $5,678,451 in 1913; and this is particularly favorable in view of the break-up by tenant purchase of the great estates whose owners formerly furnished most of the income tax.

[a] Where statistics for years prior to 1914 are used in this report they are in most instances the latest available authentic figures.

The aggregate of local taxation in 1913–14 at the end of the fiscal year March 31 was $23,497,900, as compared with $21,340,800 in 1908; and the grants from imperial revenue for local use in Ireland have been correspondingly diminished. Of the amount shown above, 73 per cent was collected under assessed tax rates on realty and other property, while 12 per cent was from tolls, fees, and dues, and 6 per cent was the return on property owned by local governments.

The local indebtedness of Irish counties and urban communities at the end of 1914 was $123,861,700, of which $51,538,718 was municipal. Sinking funds for amortization are stated at $6,365,000; water supply at $8,036,810; lighting, $9,911,382; and sewerage, $5,466,393. The lighting systems paid $150,000 above interest and expenses in 1914.

An item which will seem novel to students of local fiscal affairs in the United States is that of $5,907,707 for housing schemes on behalf of the working classes. Of the rural indebtedness the sum of $33,526,565 has been incurred for building and improving laborers' cottages. It is estimated that over 50,000 dwellings of the latest designs have been erected in Ireland since 1881 for the benefit of certain classes. These facts furnish important evidence of the progressive character of Ireland's economic life.

Cost of Living.

The cost of living advanced 20 per cent in Munster in 1914. Imported foodstuffs showed strong rising tendencies: Sugar increased from 4 to 10 cents per pound; flour from 28 to 36 cents per stone (14 pounds); corn meal from $7.30 to $9.70 per ton; and tinned food and jams increased fully 10 per cent. Bread rose from 5 to 7½ cents per 2-pound loaf; margarin from 10 to 14 cents per pound; cheese from 20 to 24 cents per pound; and rice advanced 2 cents per pound. Manitoba wheat rose from $8.80 to $16.40 per quarter, and Minneapolis flour from $6.35 to $11 per barrel. Cottonseed-oil cake at the end of the year approached $50 per ton. All package groceries advanced from 20 to 30 per cent.

Domestic foodstuffs increased in consequence of these advances, although not so sharply as imported articles. Eggs rose from 22 cents to 27 cents per dozen within a few weeks after the war commenced. Bacon retailed at about 26 cents per pound in the early summer, but rose to 30 cents in the autumn. Butter advanced to 32 cents. Milk advanced to 7 cents per quart, a hitherto unprecedented price. Meat of all kinds rose about 2 cents per pound, and still higher figures are indicated for 1915. Steaks, chops, and roasts retailed at 22 cents per pound at the close of the year, while leg of mutton was 18 cents, and boiling beef, breast of mutton, etc., 14 cents. Household coal rose from $6.25 per ton, prior to the war, to $8 per ton at Christmas. Haberdashery, dry goods, men's furnishings, etc., increased in price by approximately 20 per cent, owing largely to the increased cost of knitted goods, as lack of German needles temporarily paralyzed even the English knitting mills.

This increased cost of the necessities worked great hardship among the poorer people, though abundant employment and the governmental allowances of various kinds offset the rise in prices appreciably. A consumers' league was formed in the city of Cork to com-

bat the increased charges for milk, bread, sugar, and other staples, but its activities did not appear to have great influence.

Water Transportation—Shipping Statistics.

Cork has a far larger shipping trade with foreign countries than any other port in Ireland. This superiority is more apparent than real, however, since the great trans-Atlantic liners which merely stand by in the outer harbor to take on passengers are included to swell the tonnage aggregates. It is true, on the other hand, that the over-seas trade of Cork continues large and prosperous. The Cork Steamship Co. has regular sailings to Dutch, Belgian, and French ports, and prior to the war maintained a freight service to Germany. Odd cargo boats from Continental ports are not infrequent. Vessels with timber arrive from Scandinavia; salt cargoes and fruits are brought directly from the Iberian Peninsula; and timber, grain, and meat come in schooners and steamers from the United States, Canada, Argentina, and Australasia.

There is a heavy water-borne trade with other United Kingdom seaports. The City of Cork Steam Packet Co. has triweekly steamships to Liverpool, a weekly boat to London, and a daily or triweekly service from Waterford to Fishguard. The Clyde Shipping Co. operates biweekly vessels from Belfast, Glasgow, Dublin, and Limerick. There were no noteworthy changes in these transportation arrangements in 1914.

In coastwise traffic, Cork is greatly exceeded by Belfast and Dublin, which have coastwise tonnage of 3,120,217 and 2,273,398, respectively; in fact, Cork is rather to be classed with Wexford and Waterford, with their records of 588,969 and 457,795, respectively (the Cork figures, already stated, being 627,494). The number of all vessels reaching Ireland from foreign ports in 1913 was 1,748, with a tonnage of 5,724,048. The total coastwise vessels clearing Irish ports in the same year were 29.986, with a tonnage of 8,360,075.

Population and Emigration Figures.

The population figures are encouraging, at approximately 4,380,000 in 1914. The emigration, which from 1891 to 1900 averaged 433,526, had shrunk in 1914 to 20,314, the lowest figure since 1890, although the emigration from all parts of the British Isles was abnormally low in 1914. The United States was the destination of 15,272, or about 75 per cent, of the emigrants from Ireland; approximately 3,000 went to Canada; 1,000 to England and Scotland; and the remainder to Australasia. Contrary to popular conception, the heaviest emigration is from the north of Ireland. The rate of emigration in 1914 was only 4.6 persons per 1,000 of population, the lowest in 60 years.

The emigrants represent the best youth of the country, since during the decade 1901–1910 over nine-tenths of the total (92.2 per cent) emigrants were under 35 years of age; 83.3 per cent were between 15 and 35 years of age. [Population statistics were discussed in Daily Consular and Trade Reports for Oct. 24, 1914.]

A conspicuous feature of Irish emigration is the large proportion of female emigrants, the women (9,564) nearly equaling the men (10,660). This is explained by Irish economists by the absence of

suitable employment, as labor returns show that only 1 woman finds employment in Ireland as against 12 men. Women are not employed on farm work, such as milking cattle and fattening stock, and accordingly the number leaving is most marked in the rural province of Connaught, while the fewest go from Ulster, where textile industries give gainful occupation to women.

The Irish birth rate in 1914 continued low, 22.6 per 1,000 of population; but the marriage rate, 5.4 per 1,000 of population, was the highest ever registered, due no doubt to the war. The death rate in 1914 was also pronouncedly favorable, at 16.3 per 1,000. In the 27 leading cities of Ireland the birth rate was 26.6 per 1,000, as compared with a decade average of 23.1; and the death rate was 19.1 per 1,000, as compared with a decade average of 17.3.

Divisions of Population.

Of the general population, the females predominated slightly in 1913, numbering 2,192,567, as compared with 2,186,509 males; but this is due to the excess of women in Ulster, as the other three Provinces all show a slight predominance of males. The number of unmarried persons in Ireland is exceptionally high, no less than 52 per cent of all persons over 15 years of age being unmarried in 1911. It is this high proportion of bachelors and spinsters which has given Ireland its low birth rate, the lowest in Europe outside of France. The number of families, however, has remained approximately the same since 1901.

As in so many countries, the urban population in Ireland is increasing at the expense of the rural areas, its share of the total population having risen from 19.7 per cent to 33.5 per cent within a little more than a generation. Similarly the professional and commercial population has increased, while the agricultural, domestic, and industrial has correspondingly decreased.

The proportion of illiteracy has steadily fallen, so that in 1911 only 9 per cent of all persons over 9 years of age could neither read nor write. On the basis of persons over 5 years of age, 11.9 per cent were illiterate in 1911. There are 8,649 primary schools in Ireland, of which 8,249 are under the Board of National Education, and there are 488 superior schools and 19 collegiate or university institutions.

The use of Gaelic or native Irish language is declining, but in 1911 there were still 582,446, or 13.3 per cent, of the population who spoke Gaelic. Only 16,873 knew no other language.

Productive Population—Housing Conditions.

The productive population in 1911 was distributed as follows: Agricultural, 780,867; industrial, 613,327; domestic, 170,749; professional, 141,134; and commercial, 111,143. Of the professional class in Ireland, 50 per cent were employed by the Government. Eighty-four per cent of the domestic servants were females. Of the commercial class, at least three-fifths were engaged in the conveyance of men, goods, and messages. In the industrial class, textile workers and dealers numbered 200,717; caterers and lodging-house keepers, 61,747; house and furniture fitters, 57,944; mineral workers, 39,749; machinery workers, 14,951; workers in vegetable substances, 9,661;

printers and stationers, 8,163; and boat builders, carriage builders, and harness makers in smaller numbers.

The data as to quality of dwelling houses are not wholly favorable. In 1911 there were 58,334 one-room houses in Ireland, and 6.4 per cent of the total number of families lived in such houses. In two rooms there were 21.3 per cent; in three rooms, 25 per cent; and in four rooms, 16.9 per cent; so that virtually 70 per cent of the population occupied houses having fewer than five rooms.

Labor, Wages, and Employment.

The year 1914 was characterized by a general absence of strikes in Ireland, in contrast with the autumn of 1913. Wages compared well with former years, although not approaching American levels. The builders' union at Cork, in the autumn of 1914, struck for an increase from $4.87 per week to $5.11, and obtained it. The wages of factory operatives range above and below this level, but in some of the clothing and chemical factories skilled workmen earn up to $12 and $15 per week, usually on a piecework basis. Female labor is exceedingly inexpensive, a stenographer commanding about $3 per week.

During the latter part of 1914 the number of industrial workers in Irish workshops fell off noticeably, the shrinkage in September being 10.5 per cent and in October 9 per cent. This was due to the war, which also accounted for the drain of employees from Ireland to English factories. It was anticipated that the presence of Belgian refugees might affect the labor market, and measures were taken to forestall this, but these precautions proved unnecessary, as no difficulty whatever developed.

The cost of farm labor rose somewhat during the latter part of 1914, but is still low. A plowman working a few miles from Cork receives $3.70 or $4 per week, without free cottage. The Irish Department of Agriculture and Technical Instruction reports signs of a slight but steady advance in wages.

Ireland's peculiar phenomenon of summer migration of farm labor from the western counties to England is now less pronounced than a few years ago. During the agricultural season numbers of laborers are absent for several months from counties Mayo, Donegal, Galway, Roscommon, Sligo, and Kerry, and on their return they bring large sums of money back into the remote sections of those counties. In 1909 the migrants totaled 20,500, and brought back something like $815,000 in wages; but in 1914 only 8,687 laborers left these counties. The Irish National Health Insurance Fund has proved a success and a substantial benefit to the working classes. In 1914 the amount of contributions to the fund by Irish employers and employees was $3,523,346.

Governmental Improvement Schemes.

The Department of Agriculture and Technical Education for Ireland prosecuted its betterment plans vigorously in 1914, and the condition of the rural population shows conspicuous improvement. Last year the various county committees on agriculture employed 146 instructors in connection with the department's four schemes for the development of agriculture, horticulture, poultry raising, and butter

making. These instructors went into every part of Ireland, giving informal lectures, farmhouse talks, and demonstrations. They gave 1,146 lectures (1913–14), attended by 46,818 persons, and conducted 418 series of classes, attended by 5,000 pupils. They also made 80,788 personal visits of instruction to individual farms and operated 3,279 demonstration plots and field experiments. Plowing, bacon curing, and apiculture were also taught by a number of these instructors. In addition to the county committee instructors, the department employs 84 instructors directly, so that agricultural instruction is carried into every farming community.

There are 21 agricultural institutions in Ireland giving approved courses of study. The department itself conducts 10 of these, having opened a new one at Strabane during 1914. The total number of pupils in the 21 institutions is only 520, of which 50 per cent are females. A large percentage of the graduates take up the work of instruction instead of conducting independent farm operations. In 1913–14 the aggregate number of pupils in Ireland attending so-called technical schools was 45,377, of whom 18,758 were men and 26,619 women. These schools correspond loosely with American high schools, with emphasis on manual training, draftsmanship, and designing, mechanics, culinary science, and similar studies.

Loans and Other Assistance to Agriculture.

The Department of Agriculture and Technical Education for Ireland has devised numerous other plans for assisting agricultural development, such as loans for implement purchase, tree-planting, free veterinary dispensaries, prize competitions for plowing and for neat cottages, and subsidies to stock shows. In 1913–14 the seed experiments, manurial experiments, etc., conducted on a practical scale by the department, totaled nearly 800; and in these, the efforts were centered on potatoes and root crops. A new series of field-fertilizer experiments was instituted in 1914, based upon the experience of the 10-year series which was concluded in 1913. Stock-feeding experiments to the number of 90 were carried out to ascertain the relative values of cooked or raw meal to swine, of pure maize or mixed cake to cattle, and of roots and meals in general.

The most vigorous of the cooperative loan plans in the past year or two has related to implement purchase, and has been most manifest in Connaught. It is said that about 12 societies have been formed in that Province and that they have each purchased on an average $1,200 worth of machinery, such as potato diggers, thrashers, disk harrows, etc. In 1914 six steam thrashers were thus purchased by various communities in Connaught where hitherto only flails had been used. Cooperative creameries and butter factories are a conspicuous feature of Ireland's agricultural life. On the other hand, attempts to institute cooperative cheese factories and bacon-curing establishments have not been successful.

Rural Credits—"Made in Ireland" Movement.

The committee appointed in 1912 to inquire into rural credits completed its work in 1914 and submitted an exceedingly elaborate report. [See Daily Consular and Trade Reports for July 24, 1914.] Out of 310 cooperative credit societies founded in Ireland within the past 15 years, 176 are still alive, and of these latter it is reported

that 45 per cent are in an unsatisfactory condition. Of the rural credit banks which the department had been subsidizing 40 per cent had ceased to work at the end of 1914, and the department had withdrawn its loans.

The "Made in Ireland" movement had its origin in Cork about 12 years ago; and its efficient organization, the Irish Industrial Development Association, has for the past eight years been national in scope, with headquarters at Dublin. It has a strong corps of unpaid correspondents in the United Kingdom and throughout the world to send in trade opportunities for Irish goods, and publishes at least one weekly organ, with numerous reports. It has given wide publicity to the Irish trade-mark, which is now affixed to a large proportion of the goods manufactured in Ireland, and has prosecuted infringers of that trade-mark under legislation which it procured.

The association has continued a strong advocate of technical education; and the Cork School of Commerce, founded through its efforts, in 1914 had 500 students, or 11 per cent more than in 1913.

Traffic on Railways—Purchase of Farm Land.

The railways of Ireland [see Daily Consular and Trade Reports for Aug. 24, 1914] traverse principally the southern and eastern sections, over one-third (1,300 miles) of the total mileage of 3,403 lying within this consular district of Munster. The total passenger traffic is about 30,000,000 persons per annum, and of this Munster has only one-fourth. Of the freight traffic Munster has probably one-half, owing to the movement of cattle, swine, and sheep. In 1911 the number of persons employed on Irish railways was 13,043.

The early part of the year 1914 was adverse to all transportation undertakings. The official statistics, which include the majority of the Irish railways, showed gross receipts from January to June, 1914, at $10,393,380, a slight decrease from receipts for the same period in 1913. The freight traffic for the year was decidedly better than the passenger traffic. The railways of Ireland were not taken over by the Government under the act of 1871, as were the English railways, and the employees were at times dissatisfied with the terms under which they labored.

It is advisable to note the change which has been effected in land tenure within the past decade. In general it may be said that land purchase by tenant farmers has proceeded rapidly and satisfactorily, but that the war has arrested the movement before it has fully worked itself out. Those unpurchased tenants (especially the so-called "evicted tenants") who are still eager for assistance will be forced to wait until the Government is in a better position to finance their purchases; but in the meantime they are seeking statutory reduction of rentals, and not without some prospect of success. At a rough estimate it may be said that two-thirds of the Irish land purchase has been completed. When the process is at an end, about one-eighth of the land of Ireland will still remain in large estates in the hands of gentry or wealthy persons.

Under the act of 1903, which has accounted for more than half of all land purchased, the tenant purchasers pay installment rent to the Government for 22.4 years before receiving clear title, and under the act of 1909 they pay for 20.3 years. It is estimated that the installments have been sufficiently lower than the regular rents, so that since

1881 the tenants have averaged a gain of approximately $10,000,000. The total advances made by the Government since 1870 to January 1, 1915, have been $449,589,160, of which $311,863,822 were under the act of 1903.

Rental and Purchase Statistics—Other Aids.

During the fiscal year ended March 31, 1914, 97,367 tenants were paying interest in lieu of rent, and out of approximately $5,300,000 due by them only about $25,000 was unpaid. The number of tenant purchasers actually paying installments toward ownership was far larger still, standing at 234,780, and of this number only 1,378 were in arrears. Out of approximately $13,000,000 due from these purchasers only about $60,000 remained unpaid on July 1, 1914. The negligible figures as to arrearages have been generally accepted as evidence of the earnestness and capability of the Irish farmers in the matter of becoming independent landowners.

On December 31, 1914, negotiations were in progress for additional land purchases, aggregating in value $146,663,715, and the Chief Secretary for Ireland estimates that there yet remains in Ireland land valued at $300,000,000 to be purchased by farmers. No acreage figures for purchases, past or prospective, are published. In the course of the purchases a large number of rentals of land, which has not been the subject of purchase, have been judiciously reviewed and reduced. Up to March 31, 1914, 380,771 cases of this kind had been adjudicated, relating to 11,323,760 acres of land. The average reductions resulting were 20.7 per cent for Ireland, while in Munster the landlords' rents were reduced 22.3 per cent and in Ulster 19.7 per cent.

The price of land in Ireland has never been so high as at present. One tract recently brought a sum equal to 100 years' payments of an annuity to which it was subject. Owing to the system of tenure from the Crown, no comparison of land prices with those in America is possible, since the farmer never owns his land in the same sense in which the American farmer does.

In remote districts where the Irish countryside is especially impoverished from sterile soil, lack of capital, or lack of initiative, an arrangement has been made for relief by the Congested Districts Board, which is a Government organization. The regions treated by this body are not congested with population, except relatively to the resources of the locality. The board aids in construction of houses and barns, in purchase and care of breeding stock, in settlement of disputes as to allotment of small fields, in the introduction of machinery and improved methods, and in general enlightenment and improvement. In 1914 the board planted 181,694 trees, and made loans for implement purchase to about $16,000. Grants to persons building improved cottages are frequent, and any laborer in Ireland can now occupy an excellent cottage at a rental of from 24 to 36 cents per week.

Size and Tenure of Land Holdings.

Another gratifying feature of the land situation is the decrease of small holdings and the increase of medium-sized farms. The number of tracts smaller than 15 acres has steadily decreased during the past half century, although in recent years the diminution has been very gradual. Notwithstanding this decrease of small holdings, one-half of the total holdings in Ireland are still between 5 and 15

acres in size, and it is stated on excellent authority that two-thirds of the farms in Ireland have a rental value of less than $50 per annum. In 1913 the number of owned holdings in Ireland was 401,819, and the number of tenanted holdings 206,255. The plots comprising less than one acre each were still 88,133 in number, and only 32,045 holdings comprised more than 100 acres. The number of holdings from 30 to 200 acres showed increases.

The total area of Ireland is 31,830 square miles, or 20,371,125 acres—about the area of Maine or South Carolina. About 14,932,093 acres, or practically 75 per cent, are used for meadows and hay. Of the land not used for meadows and hay the greater part, 3,132,017 acres, consists of bog, waste, and forest, leaving only 2,348,483 acres devoted to grain, roots, and flax. The hay acreage increased from 2,224,165 in 1903 to 2,487,313 in 1914, while the cereal acreage fell from 1,306,345 to 1,263,963 in the same period. There were decreases in tillage area in the various provinces from 1903 to 1913 as follows: Connaught, 6,882 acres; Munster, 7,368 acres; Leinster, 9,185 acres; and Ulster, 69,149 acres. The last figure was due to flax fluctuations.

The county of Cork, in Munster, has a grass area of nearly 1,000,000 acres, and has mixed crops almost equal to those of the entire province of Connaught. No other county in Ireland approaches it in area of farm products, and it is considered one of the greatest food-producing units, of equal area, in the British Empire.

Exports to the United States from Cork Consular District.

The articles and their value, invoiced at the American consulate at Cork and the agency at Limerick, for the United States in 1913 and 1914 were:

Articles.	1913		1914	
	Quantity.	Value.	Quantity.	Value.
Bacon and hams.....pounds..	4,381	$1,254	2,648	$581
Feathers.....do....	1,394	456	.....	.....
Hides and skins.....do....	164,640	23,207	223,465	34,053
Calfskins and kips.....do....	45,094	8,072	3,624	4,712
Mackerel:				
Canned.....do....	218,838	11,834	278,220	14,204
Salt.....do....	1,119,600	45,936	1,429,400	54,664
Magnesia.....do....	289,006	3,572	.....	3,689
Statuary.....do....	.....	4,866	.....	.....
Wool.....do....	2,800	683	.....	.....
Woolen cloth.....yards..	272	293	2,094	3,508
Woolen rugs.....	362	1,081	.....	.....
Whisky.....gallons..	2,956	3,098	5,166	5,238
Miscellaneous articles.....	.....	2,589	.....	2,719
Total exports.....	.....	106,941	.....	123,368

Purchases from the United States.

The natural resources of the United States account for a large percentage of the American sales to Ireland, as in the cases of timber, petroleum, and phosphates. There is an opportunity to increase the timber exports, as supplies for Ireland from the Scandinavian peninsula are irregular, but this is offset by the dearth of freight facilities from the Pacific coast and Gulf ports.

Agricultural staples such as wheat and flour, maize, and tobacco would almost inevitably flow out of the United States to Ireland; but, as in the case of natural products, there seems no indication of effort by America to build up this export trade. Other things being

equal, it appears natural that the wheat and tobacco will ultimately be manufactured where they are produced and will be shipped as light finished goods. If this occurs, trade with Ireland in these products should constantly grow more favorable to the United States, and the opening of the Panama Canal should be of great value in this connection.

American Specialties in Ireland.

Agricultural machinery is a large trade, meeting the famous British machinery in a market which was formerly a sort of British preserve. Tools and wooden handles are a good line, and builders' tools of all descriptions from America are constantly sold as being the best obtainable. American shoes are sold for their smart appearance, and one of the largest shoe stores in Munster sells mainly British shoes which purport to be American, to take advantage of the American reputation. American typewriters, gramophones, kodaks, and sewing machines here, as throughout the world, find ready and regular sale on their merits, although they can not be located in the official statistics.

American cotton underwear, fleece-lined, is in great demand among the rural classes, and this trade is of sufficient importance to be better handled than at present, as price-cutting by brokers has forced retailers to carry it on a nonremunerative basis. American hardware of all classes is well regarded, and it is handled in large quantities in competition with hardware from Bradford and other British centers and from Germany prior to the war. Canned fruits, pickles, baking powder, etc., from the United States have an ample share in the grocery trade here, although some familiar lines, such as peanut butter and canned corn, can only be introduced by protracted advertising, of which rival brands might ultimately reap the profits. Brooms and brushes, lubricating oils, axle grease, patent drug compounds, and glucose come regularly and in fair quantities. Brooms and brushes are generally invoiced from Baltimore.

American automobiles may be said to dominate the market in this district, owing to the excessive popularity of a well-known inexpensive Michigan car. Not a few additional American cars are commencing to have a reputation here, and two brands of motorcycles and three of outboard rowboat motors are sold by Cork agents.

Suggestions to Exporters.

The most feasible avenue of approach to the Irish market at the present time is by way of a British branch or agency, which will cover Ireland, along with other parts of the United Kingdom. Commercial travelers from Liverpool, London, Manchester, Glasgow, and other trade centers of the United Kingdom canvass Ireland thoroughly. The Continental European firms send fewer men here, relying on British salesmen who carry their lines. Germany had a good number of commercial travelers here prior to the war. The market is deemed too small to warrant direct shipments from foreign countries to Irish brokers.

In establishing a British agency it is advisable to spend a few days in Ireland in order to have some personal knowledge of the market. It is the experience of this consulate that for British branches or agencies of American firms an American staff throughout is better

than placing the business in the hands of British firms or individuals. This relates, of course, to the central British headquarters. While it may be more difficult for an American staff to procure early results than it is for British brokers with ready-established connections, in the long run the Americans will prove more resourceful in increasing the business.

Importance of Samples.

In case personal representatives can not be sent, the reliance will naturally be placed upon samples. In a keenly competed-for free-trade market few purchasers will buy from catalogue illustrations and specifications. Literature should, of course, be sent, but it should state that a sample or samples will be forwarded at the would-be exporter's risk and expense if there is a fair probability of a sale resulting. Shipments on approval can sometimes be arranged, but the Irish buyers are not accustomed to trial orders of goods which may prove unsalable. It must be constantly borne in mind that the United Kingdom buyer believes that he has combed the world for the cheapest and best articles of every kind, and that they are already in his hands. He will only be convinced that better values exist by visible and tangible demonstrations; and he does not feel called upon to expend any money, even in small amounts, on what he considers largely fruitless experimentation.

The Irish firms have in general a high standard of honesty, and if further security is desired, this consulate will be glad to see that the samples sent are well treated, and in case of dissatisfaction are properly packed for the return.

Freights and Credits.

The Irish buyer is accustomed to be generously treated by the purveyors who contend for his custom. This does not mean that he does not pay promptly and adequately for what he takes, but it does mean that he feels under no obligation to put himself out to examine strange goods. Prices quoted f. o. b. Atlantic seaboard in America have no significance to the average Irish purchaser. Prices quoted f. o. b. Liverpool will gain his attention at once, but what he is accustomed to is quotation delivered to his own warehouse c. i. f. Cork, Waterford, or Limerick.

Irish firms are usually ready to furnish excellent credentials, and many of them are rated by the standard English rating firms, such as Stubbs. Under these circumstances the credit should be easily arranged. Remittances against bills of lading are often used, although cash on receipt of goods is more common. Thirty and sixty day credits are not unusual. Discounts of 5 per cent or 2½ per cent are customarily allowed for cash.

There is a friendly sentiment here toward all things American, tempered with some distrust of American business methods. The idea prevails that American goods are apt to be better in appearance than in solid value, and are high in price. Novelty or smartness do not appeal, and the margin of profit must be small.

With a fertile soil, favorable climate, a naturally fecund population, and with its industrial troubles largely past, Ireland is bound to present to the United States exporter a growing and prosperous market which should not be overlooked.

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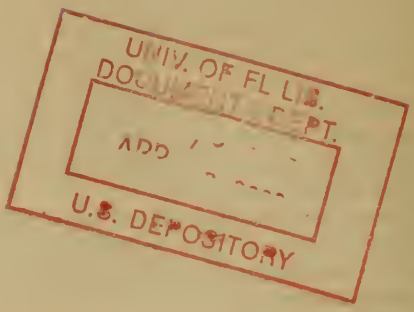
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